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Table of Contents.

LEADING ARTICLES OF THE MONTH.

PRACTICAL
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Original Communications.

The Importance of the Lymphatic System From a Surgical Standpoint.

By EDWARD A. BALLOCH, M.D.
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IT is the writer's belief that in the whole domain of medical science there is no more neglected field of inquiry than the lymphatic system and no other in which richer awards await the investigator.

A glance at any of the standard text-books on anatomy will show how it has been neglected. The blood vessels, even down to the ultimate arterioles and capillules are described with unnecessary minuteness and prolixity. By way of contrast the lymphatics are dismissed with a few pages of more or less vague description, the illustrations being either copies of Mascagni's plates or drawn from the imagination of the artist.

It is scarcely necessary to give lengthy descriptions of the minute anatomy of the lymphatics. Suffice it to say that, in all essential particulars, the larger canals are identical in structure with the blood vessels, except that the coats of the former are thinner. The lymphatics of the tissues and viscera resemble the capillaries, in that they consist of a single layer of endothelium. The analogy in structure with the blood vessels is at once apparent. In their ultimate ramifications the lymphatics terminate in the connective tissue everywhere, forming the so-called connective tissue spaces. This emphasizes a fact of surpassing interest and importance to the surgeon, namely, that from a surgical standpoint, the connective tissue is merely a continuous series of lymphatic sacs. When the conception is grasped in its entirety that the subcutaneous tissue, the intermuscular planes, the intercellular tissue of the viscera, etc., are simply lymphatic sacs held together by a reticulum of fibrous tissue and everywhere connected by lymphatic ducts, the possibilities of the spread of infection seem endless.

The next anatomic fact of interest is that the subdural, subarachnoid, synovial, pleural, pericardial and peritoneal spaces are simply lymph-sacs, in free communication with the surrounding tissues by means of stomata and lymph-ducts. Every surgeon exercises the greatest care when called upon to invade any of these cavities, but were he equally

impressed with the fact that the connective tissue everywhere is simply a series of just such sacs, it might conduce to greater watchfulness in all operations involving the tissue. When we consider again that the cavities of the tendon sheaths are but lymphatic sacs, many cases of rapid and serious infection from apparently trifling wounds involving these strictures become better understood and the necessity for the separate closures of these sacs in all operations involving them, so strenuously insisted upon by Treves and others, seems reasonable.

The anatomy of the lymph-glands demands a passing notice. Three elements make up a lymph-node: the reticulum, endotheloid cell-plates and the lymph corpuscles. Stress is laid here upon the reticulum, the importance of which will be apparent later. Physiologically, the lymph may be considered as the principal agent in the formation of the blood.

The course of the lymph through a gland is this: From the afferent vessels into the various sinuses of the gland and thence into the efferent vessels. Owing to the presence of the reticulum, before alluded to, the current of lymph will flow slowly, as if through a spongy filter. Thus the reticulum serves to arrest extraneous elements which are disposed of by the amœboid corpuscles. The lymph glands, then, are barriers against infection, as is demonstrated by their early enlargement and increased activity following inoculation of the tissues with pathogenic micro-organisms. Viewing the vast extent of this system and its weighty physiological functions, is it too much to say that it is the most important single element of the animal economy?

To consider the pathology of the lymphatic system *in extenso* would be to cover about the entire domain of surgical pathology, as there is scarcely a surgical disease in which the lymphatics do not play the chief rôle. It is not, therefore, my purpose to discuss every surgical disease in detail, but to run rapidly over the field, concentrating argument on two points, viz., the part played by the lymphatics in tuberculosis and in cancer. Considering first the simple loss of lymph, it may be stated as an axiom that a lymphorragia is fully as exhausting as a hemorrhage. This is well shown in a case recently reported by Schwinn (Annals of Surgery, Vol. XXIII., No. 5) in which a large branch of the thoracic duct was wounded during an operation for the removal of the tubercular gland in the neck.

Inflammation of the ducts themselves, or lymphangitis, is noteworthy, because of the distinction to be made between the superficial and deep forms. Any one who has seen the dense, brawny thickening of the tissues characteristic of the deep-seated form of the disease, and the extensive suppuration, often unsuspected, will agree with the statement that it is an affection demanding prompt and vigorous treatment.

The subject of occlusion of the lymph-ducts is too vast to allow of any but scanty mention. The occlusion may be complete or partial. To occlusion are due lymphangioma, lymphvarix, lymph-scrotum, lymphœdema, including macrodactylia and macropodia, and finally, the various forms of elephantiasis arabum. Coming now to the affections of the lymph-nodes, it may be stated as a general proposition that enlargement of the lymph-nodes means infection somewhere. The possibility of enlargement as a result of trauma is not denied, but is rare, and it is essential that the trauma be applied directly to the gland.

The point of infection need not be near the affected gland, but the virus may traverse a long line of ducts before becoming arrested, the ducts themselves escaping injury. A familiar instance is the enlargement of the glands in the groin, the focus of infection being in the foot.

Lymphadenitis may be acute or chronic. In the acute form the source of infection should always be sought for and removed, if possible. If allowed to progress, the consequences of this form of adenitis are an irritative periadenitis, with thickening of connective tissue and the formation of pus. When pus has formed it should be given early and abundant exit by a free incision. Leaving out of account the small proportion of cases due to venereal disease and other causes, the principal causative factor in chronic adenitis is tuberculosis. The domain of scrofula has been steadily encroached upon in past years until now nothing is left to it except to be absorbed in the ever enlarging territory of tuberculosis.

Tuberculosis of the lymph-glands is a common affection among children. When the bronchial and mediastinal glands are affected the existence of the disease is often unsuspected. Thus Babes found the cervical, bronchial and mediastinal glands affected in more than one-half of all the autopsies performed at the Children's Hospital at Buda Pesth during eight years.

It may be profitable to trace the course of this disease in the cervical glands. A child with a predisposition to tubercular disease, contracts a simple nasal catarrh which is allowed to become chronic. As a result of this catarrh the cervical glands become inflamed and enlarged. Upon the subsidence of the rhinitis, the glands remain in this chronically inflamed state. Here then is the opening sought by the bacilli. The soil is ready, the germs are ever present, and it is not long before a conjunction is effected. Eczema and other diseases of the skin of the face and scalp are also causative factors in this affection.

It is but lately that attention has been drawn to carious teeth as a cause of this disease. Starck (Münchener Medicinische Wochenschrift) was able to demonstrate the existence of carious teeth in forty per cent. of his cases of tuberculous cervical adenitis. There was a correspondence in location between the diseased teeth and the enlarged glands. In two cases he was able to demonstrate direct connection between the two diseases. At this time the writer has under treatment a young man: while under the dentist's care for carious teeth and disease of the alveolus at the point of the chin, a gland beneath the chin suddenly enlarged and softened, to be followed by enlargement of the glands on both sides of the neck in rapid succession. With these facts in view it may seem superfluous to emphasize the necessity of careful attention to all diseases of the mouth, nose, throat and face in children.

Whatever the mode of invasion, so soon as the glands are once the seat of the bacilli, the series of changes common to tubercle begins to take place.

Recall for a moment the structure of a lymph-node. In describing its anatomy stress was laid upon the reticulum and its importance as a strainer for noxious products. This function is very much in evidence in this disease. The glands enlarge, inflame and break down, simply because they are endeavoring to act as barriers against the entrance into the general circulation of the bacilli of tuberculosis and their products. If the child be healthy they may succeed in

their task. If not, the breaking down of one gland may be the signal for the invasion of the next in series, and one outpost after another may yield, until the main work is captured, and we have to do with a general tuberculosis, the result of the primary invasion of a single gland.

Many surgeons go so far as to advocate the removal of the cervical glands in every case where they are enlarged. My own views, based upon a moderately extended experience, are about as follows: In an otherwise healthy child, where the disease is limited to one or two glands, with no evident tendency to spread, there should be made a fair trial of therapeutic measures. On the other hand, in a poorly nourished child, of the type formerly classed as scrofulous, with many nodes enlarged, some perhaps suppurating, and with a manifest inability to resist the spread of infection the glands cannot be too soon or too thoroughly removed.

The operation for the enucleation of diseased cervical glands may be one of the easiest in surgery or one of the most formidable, demanding of the surgeon a minute knowledge of anatomy, great skill in dissection, and a capacity to meet alarming and trying accidents. It is not a task to be lightly entered upon, hence the opinion that, in suitable cases, other means should be given a fair trial before resort to the knife, is advocated.

Aside from tuberculosis of the lymphatic system itself, the lymphatics play an important part in surgical tuberculosis of all kinds. Remote as tubercular osteomyelitis may seem from the lymphatic system, it is nevertheless the fact that enlargement of the bronchial glands precedes, in most cases, the disease in the bone.

Antecedent disease of the lymphatics as a factor in the causation of tuberculosis of the genito-urinary organs, has not yet been fully investigated, but an experiment by Simmonds points this way. An emulsion of tubercular sputum was introduced into the peritoneal cavity of a rabbit and a few days later the left testicle was bruised. The organ swelled somewhat at first, but the swelling subsided in a short time. Two months later the rabbit was killed and, in addition to a general miliary tuberculosis, there was found a broken down nodule in the left testicle.

Tuberculosis of the tendon sheaths demands a passing notice. Recalling the fact that these envelopes are lymph-sacs it must be apparent that we have here but another example of the lymphatic nature of this protean disease. From our knowlegde of tuberculosis in general, and tuberculosis of the lymphatic system in particular, the proposition may be readily deduced.

The assertion may confidently be made that nothing short of complete removal by careful dissection will serve to eradicate this disease, and it is strenuously insisted upon that early removal is vastly preferable to late extirpation, both as to local and general results. Delay is useless and procrastination dangerous.

Now as to cancer. No subject to-day more occupies the time and the best thought of the surgical world than cancer and the operations therefor. If cancer in its beginning is a local disease it would surely seem as if we should be able to limit or prevent its recurrence and dissemination after operation. If we can answer the question, How does cancer spread? we ought to be able to oppose some barrier to its frightful progress. The answer is not far to seek. Cancer spreads through the lymphatics and spreads rapidly too, as witness the

following instance noted by Warren (Surg. Path. p. 644): "In a case of cancer of the breast which the writer removed recently the patient was able to state the exact date of origin, the place where the growth was found having been examined a day or two before. The operation was performed when the growth was three weeks old and already a nodule the size of a small pea was found in the lymphatic gland of the axilla."

Resuming the thread of the argument that cancer spreads through the lymphatics and spreads early, there follows logically the proposition that in all operations for cancer, however early, the neighboring glands should be extirpated.

In cancer of the breast this is the generally accepted procedure, but I wish to make the proposition a broad one and to have it take in cancer of any and all localities. Another proposition is that, in order for a thorough extirpation of all routes along which cancer may spread we need a more accurate study and knowledge of the exact anatomy of the lymphatic system. Taking mammary cancer as an example, we have a hazy knowledge that there are lymphatic ducts leading in various directions from the mamma and that there are glands in the axilla which should be removed. As to the exact number and direction of the ducts and the number and location of the glands, our knowledge is vague. Recurrences often teach us the location of ducts and glands, before unsuspected, but to learn anatomy at the expense of the lives of our patients is to pay dearly for knowledge thus acquired.

We have known for years that secondary growths often occur in the abdominal viscera after removal of a cancerous breast. We are now aware that this is due to a chain of ducts in the anterior mediastinum, which runs through the diaphragm and connects with the lymphatics of the liver. It is true that there is no spread through these ducts until the routes to the axilla have been blocked and the after history of modern operations shows that, if the knife be resorted to early, there is not much danger from this source.

If we can remove a cancerous growth and with it all the affected lymphatics, there will be no recurrence. Anything that will help us in this endeavor will be a distinct gain. A precise knowledge of the lymphatics likely to be affected in any given case will be a long step in advance. Teachers of anatomy should see to it that their students are better taught in this respect. There is certainly a place in medical literature for a work which shall give us some definite information in this matter.

The Art of Rearing Children.

By PROF. ELMER GATES, Chevy Chase, Md.

IT gives me the very greatest pleasure to address so many of the mothers of America. I hope that some years later I may address a national congress of both mothers and fathers—an international or world's congress of parents. I am very glad that it is to the credit of Washington that the first Congress of Mothers has assembled in our city, and I feel especially indebted to the noble women who have this enterprise in charge.

I wish that I might have time to more fully explain the experimental researches upon which I shall base the conclusions of this address; I feel it a serious matter to attempt to speak to you, and through you to other mothers, on this subject of such vital importance—that of the begetting and rearing of children.

I will at once commence at the beginning of my subject by explaining a few of those experiments which led to the conclusions I am about to present to you. I wish, in the first place, to assert distinctly that my experiments have been so far almost entirely private, and, when once published and fully explained, will have to be confirmed by other experimenters, and then co-related and coordinated with the entire body of the sciences. And when that has once been done I believe that we may expect to have something like an art of rearing children—a science of eugenics! What I have to say upon this subject I believe will be fully corroborated in the near future by other investigators, and the mothers of the civilized world will then be in possession of the data that will enable them to scientifically regulate the most sacred of all human functions by the light of biological and psychological science. All hail to that time!

When I speak of heredity, I mean simply the well-known fact that living organisms in reproducing their kind beget their like, the progeny, however, always varying slightly in almost every anatomical and psychological particular from their parents. But heredity does not mean the transmission of characteristics—anatomical or mental—which may have been acquired by the parents during their lifetime, and, of course, subsequent to their own birth. It has even been strenuously denied that it is possible to acquire any character which we have not inherited. Eminent biologists have recently denied that we can transmit to our offspring those qualities or traits of mind and body which we have acquired during our lifetime—that no evidence has been adduced that a father or mother can transmit to their children characteristics which they (the parents) did not inherit. There is thus a difference between hereditary transmission and the transmission of acquired characters. It has been stated that though for ages the Chinese women have had their feet artificially deformed, they have not been known to transmit these defects to their children; that circumcision has not, though practised for generations, transmitted any defect, and that when the tails of mice are cut off for a number of successive generations, the progeny still inherit normal tails, there being no definite tendency to transmit mutilations. You will see later on in my remarks that these experiments are inconclusive, because mutilations do not create that kind of

structural brain changes, which alone, as I have discovered, are the basis of the transmission of acquired characters. Now, in face of these diverse opinions, I wanted to discover if parents could transmit acquired characteristics, and how; and also how to prevent the transmission of hereditary or acquired immoral characteristics.

I desire to put myself on record as supporting the doctrine that we can transmit acquired characteristics, and will explain some experiments which prove how we can acquire new capacities which we did not inherit, and how we may avoid transmitting undesirable traits.

The basis of these experiments on heredity are some experiments on brain building which I made earlier in my life, and about which I gave an account, four years ago, in a lecture at the United States National Museum, under the auspices of two of the scientific societies of Washington. In that lecture I stated that I had succeeded in demonstrating to my own satisfaction that conscious mental activities create in special parts of the brain new chemical and anatomical structures, which are the embodiments of those conscious experiences, and that the refunctioning of such structures are essential to the remembrance of those experiences; and that by a systematic and taxonomic regulation and repetition of these mental activities belonging to some one definite mental faculty I had succeeded in giving to certain animals more brain cells in that part of the brain where the function is located, and that I gave them more brains and also more mind! The method of doing this I have elsewhere described, and I described it in that lecture. Briefly, it consisted in giving dogs an unusual and extraordinary training in the use of some one mental faculty, such as the faculty for the discrimination of colors, and in depriving other animals (collie dogs) of the same age and species, of the opportunity to use that function (by keeping them, as in the above case, in a darkened room), and then, after the first group had been trained twelve months and the second group had been deprived of the chance to use that function for an equal period of time, I killed them and examined their brains, and found some startling results—namely, that mental activity of a definite kind creates in a definite part of the brain a series of corresponding new structures. The dogs that had been kept in the darkness had less than the usual number of brain cells in the seeing areas of the brain, and the cells were smaller than normal; and the dogs that had been trained to discriminate between pitches, hues, tints and shades of color many times per day for twelve months had a far greater than the usual number of brain cells in the seeing areas of the cerebral cortex—a greater number than any dog of that age and species ever before had, and the cells were also much larger and more complex in their internal structure, and had more dendrites and collateral filaments, and so on. Mind activity, therefore, creates organic structure, and organisms are mind embodiments. But I gave these dogs not merely more brain cells, but more mind than they had inherited—that is, dogs can by brain building get acquired characteristics.

I said in the beginning of my lecture that my experiments would have to be confirmed by others before they could become part of the body of modern science. I am therefore happy to say that one experimenter has done work since I made a public statement of my conclusions which corroborates my basic con-

clusions. I refer to Prof. Aurelio Lui, of Stephano's laboratory, in Italy, whose researches are described in Vol. XX., page 218, and Vol. XXII., page 27, of the Revista Sperimentale di Frenatria, etc., for 1894. I refer to the report in full, but will state that he concludes that as animals more and more acquire the faculty of walking, the corresponding parts of the brain acquire a greater number of brain cells, and that these cells become more complex, and so on. I have mentioned this in order to give you more confidence in my conclusions regarding my experiments on heredity and the transmission of acquired characters.

It fortunately occurred to me to apply this law of brain building to the successive descendants of a male and female Guinea pig for five generations, and I found that the fifth generation was born with a far greater number of brain cells than could be found in animals not thus trained. I applied brain building to the seeing areas of these Guinea pigs, and when I had given them as many new brain cells, representing as many color memories as I could, I then allowed them to propagate, and applied the same brain-building process to two of their descendants, and so on until the fifth generation. The Guinea pigs of this fifth generation were killed as soon as they were born and their brains examined. I found in the seeing areas of these brains a far greater number of cells than I had ever been able to find in the corresponding areas of Guinea pigs whose ancestors had not thus been trained. These experiments prove that acquired characters can be transmitted, and reveal the method for acquiring character that has not been hereditarily transmitted. Other experimenters will repeat my researches, and I am sure will find similar results. The way to create a new character is to cause the mental activities to create new brain structures, and this law promises to lay the basis of a science of begetting children.

It lies in our power to create by voluntary effort previous to the begetting of a child such brain structures as we may desire to transmit. Is this not a momentous opportunity and an awe-inspiring responsibility?

This law is operative in the lowest known forms of life, simple cells, the physiological units, which are also the psychological units of all higher forms of life on earth. If such cells are caused to engage in some one definite mental activity over and over again, generation after generation, new structures will be created in the cells, and those structures will differ as the mental activities differ. Cells feel stimuli, and this feeling is a mental activity, and when it is caused to be systematically repeated, a structure will arise which is the embodiment of that kind of mental action. It is mind that distinguishes inanimate from animate matter. By this process we do not kill off all those cells which can not respond to the stimulus, which would be the method of survival of the fittest; but we cause all of the cells, without killing any of them, to engage in the excessive repetition of some one of their mental activities, and thus produce new structures in the cells, which at the commencement of the experiment the cells did not possess. This seems to prove conclusively that structures and mental characters can be acquired other than those hereditarily transmitted, and that all of the structures and mental capacities created by the brain-building process can be transmitted.

Another experiment of fundamental importance consists in determining the chemical constitutents of the human

secretions and excretions when the person is under the influence of different emotions. The evil and painful emotions create in a very few minutes poisonous chemical products in the fluids of the body. Thus, anger produces a different poison than fear, and sorrow a still different product, and all of the evil and the depressing emotions produce katabolic and poisonous products which lower the tide of life, while the good and pleasurable and sublime emotions create in the blood and within the cellular substances of the body a series of anabolic and nutritive products which augment every physiologic and psychologic function. Now, it can be shown that these products of the evil emotions interfere with the rate and completeness of cellular development by retardation and by the production of various abnormalities, while the anabolic products promote normal cellular growth. Thus I found that the rate of cellular multiplication in lower organisms—that is, the frequency of cellular segmentation within a given time —is lessened by these poisonous products. The application is this: It is well known that the child during the nine months of gestation grows from a single cell by cell multiplication to a fully developed child, and that during this period at certain times the several developments of certain organs commence; thus at a given period the spinal cord commences to form, at another period the liver, or the heart, or the brain, or a certain part of the brain, and if at the time time when an organ is just commencing to form the mother throws into her blood, through harboring some evil emotion, some of these poisonous products, she will feed the child with them, and thus arrest the normal rate of cell multiplication, and that organ will fail to attain normal growth in size, and be otherwise vitiated. But if instead of this all of the good emotions are dirigated into activity, then the child will get all of the normal nutritive products essential to complete growth of all its parts.

But these emotive products affect also the sperm cell of the male and the egg cell of the female; hence the parents should for at least six months or a year before creating a child avoid all evil emotions, and dirigate all good emotions, so that the germ and egg may carry to the conceptive process normal structural and chemical growth, so that none of the evil emotions may have distorted the hereditary desirable qualities, and so that all of the good emotions through their nutritive products may have enabled these germ plasms to convey the desirable qualities. During these fateful nine months of gestation the child ontogenetically repeats the phylogenetic history of the evolution of life on earth; it passes through all the stages from the lowest to the highest, and if the normal nutritive anabolic products only feed the child, all of these stages will be normally completed, but every evil emotion will arrest or pervert some of these stages by interfering with the rate and character of cell development in the child. Bring into daily use all of the happy, good, moral, esthetic, altruistic, sublime, worshipful emotions before and during gestation, avoiding absolutely all of the irascible, unhappy, painful, critical, immoral and evil emotions, and you will transmit the better characteristics to your child, just to the extent that you have builded their corresponding structures in your brain. Have plenty of normal exercise, plenty to eat, and have plenty of rest and sleep.

Remember that only those characteristics of intellectual and emotive activity which you have structurally builded in your brain previous to the creation of

the child can be transmitted to your offspring; hence the parental training should, to produce best results, commence long before the creation of a child, and even these results can be arrested during gestation by wrong emotions. When you put into the brain new structures by mental activity, these structures will be transmitted like all other of your anatomical traits, but during gestation these traits may be augmented by good or perverted by evil emotions. Conscious activities must create memory structures in the brain before the capacities represented by these conscious activities can be transmitted. The experiment upon white mice, previously mentioned, in which their tails were cut off for a number of succeeding generations, failed to develop mice without tails, because cutting off tails was not a process of brain building. If you train these mice to use their tails in a prehensile manner, so as to develop in the brains of the mice a new series of more skilful memory structures of muscular motions in their tails for several generations, you will find the fourth generation will be born with greater prehensile tail capacity. This experiment is of fundamental importance in this subject. The mind activity must initiate the change in the brain structure if you would transmit an acquired character.

And now I would like to utter an appeal through you to all mothers: The incoming generation looks to you to be well born. It is seen to be a fearful responsibility to bring into the world a human being when we realize that we have it in our power to direct for weal or for woe the intellective and emotive character and moral disposition of the child yet unborn and uncreated. Therefore it falls to the duty of parents to make adequate preparation for the creation of a child; the whole question of hereditary transmission and mind building and allied subjects should be systematically and exhaustively studied in biological and psychological laboratories, the data carefully verified and the knowledge diffused in such shape that parents can apply it.

America—the whole world—calls to us for better men and women, and if we do our duty and take advantage of the opportunities offered by science, the next generation will have less sorrow, war, crime and disease, and the number of defectives will be less.

I wish to reiterate that every conscious experience creates in some part of the brain a definite structure, that every evil emotion creates in you poisons, and that good emotions create nutritive products, and you can regulate these conditions at will. Those emotive and intellective activities of your mind which you have not systematically exercised so as to create structures in your brain before the creation of a child will not be transmitted to that child; and what is transmitted to the fœtus at the beginning of gestation will be arrested or augmented, according to the kind of products thrown into the blood by the mother's emotions. A mother knowing this dare not harbor in her heart any of the evil emotions, and knowing that happiness, serenity, love and all pleasurable emotions create nutritive products, do you think she will neglect to bring into her mind daily and systematically all of these conditions? She will go by herself an hour or more each day, in quiet and silence, and away from all distracting influences, and call up each one of the desirable emotional conditions to the fullest possible intensity and joyousness and worshipful adoration; and oh, mother, if it be your privilege to cultivate your good emotions one year before the creation of the child, inhibit-

ing all wrong and selfish emotions, and if it be your further privilege to have had created in your brain all kinds of intellectual structures from a study of the sciences, you will then have a fair chance to create a better child than you could otherwise have done. Our country demands and your mother-love craves such a child, and I believe that in bringing about such a state of things we must look most to the influence of the mothers. A wife's love is something for which a man will strive; therefore let the wife give her creative love only when a man is worthy of it, only when he has for some months at least been leading a noble, courageous and unselfish life. Oh, do not create a child during the months of dark despondency and wrongdoing, if such there be, but wait until life is cheerful and morally clear! A wife can control this fountain of life; she can grant her privileges only for worthy motives, and any man worthy of them will lead such a life as to deserve them.

Produce great persons—great *persons*—and all other things follow. To create great persons is the divine task of parentage—to give to the world greater and better men and women. America asks for such men and women, and in the words of the poet she says:

Bring me men to match my mountains,
Bring me men to match my plains,
Men with empires in their purpose,
Men with eras in their brains.

Bring me men to match my prairies,
Men to match my inland seas,
Men whose thought shall pave a highway
Up to ampler destinies.

Oh, the great and glorious task of parentage! It seems to me that the most responsible position in which a man and woman can be placed is that of begetting and rearing a child; it requires the most preparation, the highest knowledge, the greatest self-control and the supremest patience, self-sacrifice and love. It seems to me that the religion of the future will center closely around the conjugal life and the cradle, and that science, art and philosophy will be content to bring their fairest gifts to the hymeneal altar. The mother must not be enthroned merely in our love, but she must sit enthroned over the weal of the incoming generation; she has the making and training of the fathers and mothers of the future.

I believe no possible training after the child is born can equal in importance what can be done before birth.

Oh, mothers of America, my appeal is that you study the laws of life and mind, the laws of transmission of character, and learn enough about your own minds so that you may eliminate all undesirable emotions and dirigate into activity the desirable ones! I believe that only by experimental study can we arrive at the knowledge of parentage we desire.

Can you conceive of a nobler undertaking than that of preparing for the creation of a child? Can you think of anything more beautiful than a mother going off alone into the quiet of her own room, free from all interruptions, for an hour's daily rest and inhibition of all unrestful and evil emotions, and for the dirigation of all the highest aspirations and emotions, and for the contemplation of the greatest subjects known to the human mind? If you do this you will give a legacy to your child better than gold and rank, and you will bring into your life the greatest and the purest joy you can ever know in this world.

Let me repeat that mind activities build brain structures, and according to the systematic character and emotive quality of those activities will be the character of the structures which you will transmit to your child; and after the cre-

ation of the child the growth during the nine months will be promoted or hindered according as the mother throws into her blood the nutritive products of the good emotions and keeps out of her blood the poisonous products of the evil emotions. According to your skill in doing this will you convey to your child the best and the noblest of all legacies—a capable and moral mind.—(From First Annual Report National Congress of Mothers.)

Report of Treatment of Secondary Anemias, with Cases.

By J. A. STOUTENBURGH, M.D.
Late Resident Physician Columbia Hospital, Washington, D. C.

THESE anemias accompany or follow other abnormal conditions, and play an important part in their course. If not relieved, they prolong the original attack, and when convalescence is finally established, leave the patient a shining mark for those infectious diseases which claim for their victims those whose resistive power is below the normal standard.

In most anemias the blood is diminished in volume, the corpuscles in number and the hemaglobin sometimes falls to less than half the normal percentage. As a result the oxygen-carrying power of the blood is impaired, tissue metamorphosis retarded and nutrition of the whole body suffers in proportion to the degree of the anemia. There is loss of appetite and constipation, and the work of living is but lazily done.

Treatment.—First. Regulate the bowels; for this podophyllum in small daily doses is effective.

Second. Cause patient to drink freely of good water, boiled preferred, taking a glassful hot three-quarters of an hour before each meal. This fills up the circulation and facilitates excretion of waste products.

Third. Give appropriate treatment for the original disease, and

Fourth. We need a remedy or combination of them that will increase the oxygen-carrying power of the blood, increase the appetite and stimulate the stomach and intestines to renewed activity.

Many so-called blood-makers attempt to do too much for us by supplying predigested and artificial food. It is better to give nature a chance, by coaxing her to resume her work, and then furnishing a nutritious and easily digestible diet.

Gray's Glycerine Tonic Compound is a preparation meeting the fourth requirement, and it has done me excellent service in many cases besides those here reported. It is made by the formula of Dr. John P. Gray, a combination of sherry wine, phosphoric acid, gentian, taraxacum, glycerine and aromatics.

The following cases from my notebook will best illustrate my points:

Case I. Mary P——, aged 24, seen first June 11, 1897.

History.—Had several attacks of malaria during fall of 1896, intermittent and remittent types; suffered two severe attacks of bronchitis during February and March, and had malaria again in May. Has been sick now six days.

Examination shows a profound ane-

mia, rapid and very small pulse, temperature varying from 99.6° to 103°, as shown by later observations. Diagnosis, remittent malarial fever and anemia.

Treatment began with calomel, followed by quinine in doses of 5 grains every hour for four hours each morning, and small doses of podaphylin at night, plenty of boiled water, and a liquid diet rich in nitrigenous elements. Fever continued one week, but being convinced that anemia was partially responsible for it, on third day ordered Gray's Glycerine Tonic Compound in half-ounce doses every four hours before taking food. This was continued four days with quinine as above, when temperature was normal. Now put on full diet, tonic continued before meals and quinine gr. ii. after meals. Treatment continued ten days, when patient reported a gain of four pounds,great increase in strength and growing appetite; pulse strong, appearance much improved. Tonic continued ten days longer, when a fine color, and strong, pulse evinced perfect health.

Case II. Margaret G——, aged 36, widow, first seen May 17, 1897. Took cold in March, had a constant cough, lost appetite and flesh, constipation and has sweats and fever. Has taken several preparations of cod-liver oil, iron, hypophosphites and various cough mixtures without material relief.

Examination.—Roughened bronchial respiratory murmur, small moist râles over left apex, some dryness and fine whistling râles over right; no dullness elicited; anemic murmur at base of heart; pulse soft, 100; expectoration scant and glairy

Treatment—For bowels, same as Case I., boiled water to be drunk freely, and a mixture containing codeine one-sixth grain, and beechwood creosote m.i in ℥i of strong syrup of ginger, to be taken every four hours to relieve cough. Gray's Glycerine Tonic Compound was begun at once, taken after meals on account of irritable stomach.

May 27.—Cough slight, no expectoration or sweats, sleeps and eats well; auscultation-respiratory sounds much improved, a few most râles over left apex. Codeine mixture given twice a day. Tonic continued.

June 7.—All symptoms have disappeared; examination negative; pulse strong, condition excellent, although she is supporting herself and children by hard work.

Case III. Annie V——, aged 23, married, first seen June 23. Aborted at the third month, two weeks ago. Had profuse hemorrhage then, and it has continued in varying quantity to date; is thin and pale, has fever, sweats, severe backache and pelvic pain.

Examination showed enlarged, tender uterus, with sanguino-purulent discharge; pulse 120, small and soft, mucous membranes very pale. Diagnosis, sepsis and anemia, following abortion and hemorrhage.

Treatment.—Thorough curreting with gauze drainage, changed every second day after irrigation with normal salt solution. The glycerine tonic and quinine were given as in later part of Case I. In one week the temperature was normal, no tenderness or pelvic pain, general condition much improved, tonic continued before meals and elixir lactopeptine after meals to aid digestion. On fifteenth day patient said she was almost as good as new; appetite splendid, digestion and assimilation perfect. Patient discharged cured July 13, having gained nine pounds in twenty days.

Case IV. Mary M——, 42, widow, first seen June 5, 1897. Was operated on for fibroma uteri one year ago, ovariotomy

and partial hysterectomy being done. Since then has suffered constantly with stubborn constipation, anorexia and indigestion. Of late has had constant headache, cannot retain food, bowels not moved for six days, has distension of abdomen coming on every afternoon, accompanied by intense pelvic pain.

Examination showed marked anemia, tympanites, bowels loaded and a fibroid reaching half-way to the navel and nearly filling hollow of sacrum.

Treatment.—Enemata to clear out bowel; copious drinking of hot water; liquid diet; hot stoups for pain. Improvement is rapid. On the third day retained food. Gray's Glycerine Tonic Compound in tablespoonsful doses, well diluted, was given before meals and quinine gr. 2 afterward; food gradually increased. On the fifth day bowels moved naturally, distension ceased and appetite improving. One week later was much better; good appetite, bowels moving daily; is now doing her own work. She drank hot water before meals and continued the tonic for two weeks longer, when she reported that she was in better health than for years, and had gained eight pounds since beginning treatment.

These are some of the cases in which I have used this new restorative with the best satisfaction. I am well satisfied that we have in this tonic a most valuable medium, one sure to grow in favor as its merits become better known.

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*The Physician, His Personnel, and How It Affects His Success.**

By T. J. HILLIS, M.D., New York.

THE Physician.—Of all the pursuits and occupations engaging the attention of civilized man, there is none so trying and so grinding on the nervous system as the practice of medicine. Men engaged in other walks of life, and the people at large, have as a rule regular hours in which to transact business, appointed hours for meals, a time for rest and amusement. The day laborer, the lawyer, the artist has regular hours for repose. These periods are dedicated to sleep, a heritage to be maintained, an institution to be perpetuated. No ringing at their doorbells at unseasonable hours, no jumping out of bed half awake at a moment's notice, no running out into the darkness half-dressed, no solitary walk through miles of street under angry and unpropitious skies; for the doctor no holiday, no Sunday, but weary years of toil; no church bell to summon him to devotion, no process server to remind him as a citizen. Occasionally in the monotony of tumult, he receives a sudden jar when the bailiff comes to eject him for non-payment of rent; however, happily this is of infrequent occurrence. He is exempt from some obligations, only to be a slave to others. His vocation is to be ever waiting and always ready—a bondman *de facto*, while a citizen *de jure*. He would be discomfited and destroyed by these accumulated woes, were he not buoyed up by the consciousness of doing good. Here the poison and the antidote are companions of a journey.

Dwelling in the midst of alarms and a witness of so many tragic scenes, no mat-

*Read at the thirteenth annual meeting of the Fifth District Branch of the New York Medical Association.

ter how steeled his heart, the effect is felt and the image reflected; there the negative or shadow finds an abiding-place, and the development will come slowly or may suddenly be precipitated by a favorable condition. Excitements will begin to tell at fifty-five on the floor of the heart, roughening its naturally smooth surface and binding down its longitudinal fibres, rendering the doors or valves leading to the main arteries leaky and inefficient. The circular fibers of the arteries supplying this floor, the vasa vasorum, contract too, narrowing the lumen of the vessels and destroying their function, when atheromatous or calcereous degeneration ensues. Now the condition known as endocarditis exists, and few physicians at sixty-five are free from this pathological sequence.

After sixty there is a sort of chronic inflammation, progressive and increasing, according to the labor or excitement to which the physician is exposed. There is no temperature range of any consequence attached to this contraction and thickening; in fact, the temperature may often be subnormal. This might on general principles be designated as dry rot. Old trees are subject to this disease, too. The old tree rots at the heart, as the saying goes, while the young tree dies at the root. The old man's nervous system is not so impressionable as that of the young. It has not the elasticity to rebound, or the potential energy to summon quick reinforcements. The old man's heart is a storm gauge. It receives the blows and they are registered on the endocardium. He may be unconscious of the manner of reckoning, and indeed even of the blows, but excitements after sixty will have a cumulative and finally a disastrous effect, and the saying will go around: "He died of a broken heart; that news he heard yesterday killed him."

Not Interested about Himself.—It is a well-known fact that the physician is careless about himself, sometimes to a degree of fatuity. While interested in his patient's heart murmur and the pallor of his patient's cheek, he thinks not at all of his own. He will examine with great minuteness a blood disc from his patient's artery, to determine its ratio to the standard of health, and investigate the source and quality of a murmur with care; while his own heart is weak, its valves are faulty, with murmurs long and loud, heard everywhere over the areas of exploration. He trusts himself to the mercy of the elements, chance and perennial hope, while he builds a wall of protection around his patient and formulates a treatment that will withstand a vigorous bombardment from disease.

When He Will be Reminded that there is a Limit to His Endurance.—At sixty-five the surgeon should hand his scalpel to a worthy brother, younger than he. Many reputations have been ruined by not knowing when to quit. He should not imitate the pugilist and wait for a knock-out blow before retiring. After that age he will have a tremor in his hand, and the eye will grow dim in spite of glasses; even though the mind is as clear as running water, and its reasoning perfect, it cannot control that tremor of the hand. Then let him retire gracefully when he feels that the touch of time is upon him, for none should know better than he that nature is inexorable and will not be trifled with. If he further persists, from habit or vanity, in the vivisection of his fellow-beings, he is very likely to be the subject of some good-natured ridicule in the operating-room by the younger men around, and even by the neat and keen-visaged nurse at his elbow. Each day brings poorer results. There is nothing to be hoped for but re-

trogression in his methods. There is no time here. He is looking backward. He wants to grasp again the triumphs that younger and brighter days had brought him, to prop him up in this, the hour of his sore distress. Through the dim vista of the past he discerns the phantom flying and sees the lurid flame—forbear, good doctor—

"To tempt the dangerous gloom."

He takes the step heedless of the warning, and disappears from the scene.

The physician at seventy should take in his sign and seek a quiet retreat in the corner of a consultation-room. He is now admirably adapted for giving advice. The stored-up experiences of years have an inestimable value here. If he further persists in active labor and launches again on the stormy deep, his hulk will founder, since it is leaky, shrunken, warped, eaten by the resistless fury of the elements and weighed down by the incrustations of time, a prey to the conditions that are the offspring of age and the complements of senility and decay.

His Discipline.—The well-disciplined physician will not worry too much if things do not go to his liking in the sick-room, or take it to heart if he loses a patient suddenly and unexpectedly. If he does, the sooner for his peace of mind and health he enters another pursuit the better for him. The constant fretting will wear his mind and consume his body, and while yet young he shall be gathered to his fathers and join the majority beyond.

The wise physician will forget the pains and tribulations of the sick-room after the door is closed behind him. In that room let him think and use his skill and judgment well, give his instructions in an easy yet emphatic manner, not recapitulate except on special occasions. Often for this cause good doctors have been accounted bores, and patients have disappeared from their lists without their knowing why.

The physician must not be too sympathetic in the sick-room, or carried away by the tears and sad faces he sees around him. He must be like the sturdy oak in the forest—bend to the blast, while not being affected by it. He must always keep himself well in hand, never lose his temper or presence of mind; if he is master of himself he will seldom have difficulty in being master of the sick-room. He must be ever conscious of the fact that the family did not send for him for the purpose of sympathizing with them; their friends and spiritual adviser are abundantly able to do this, and more too, for it will be found that the former, and unfortunately often the latter, indulge in criticisms not overfavorable to the physician. His method of treatment will be measured by his degree of success, and, if failure perches on his banner, a cute and knowing friend in the background comes to the front to whisper into the ear of the distressed relative: "I told you so; I said all along he did not understand the case."

The nature and character of the disease play no part with these people. It is always a question of the degree of ability of the physician.

His Trials.—It cannot be too forcibly emphasized or too often repeated that humiliation has come to the physician because of his kindness of heart and ever-ready sympathy. He is doing excellent professional work to save his patient, and has hope he can pull him over the crisis. He neglects other patients whose money is sure, for this one whose money is not sure, but whose promises are inflated and extravagant; he has taken a special interest in this case, is in the sick-room early

and late, watches all the symptoms, and combats every unfavorable turn.

At the crisis, and while he is preparing to see this patient, who is the first on his morning's list, his door-bell rings violently, a small boy hands in a note directed "To the Doctor."

On the previous evening a patient promised to send the doctor a fee that was long overdue. His heart was full of glee and words of thankfulness were on his lips as he was about to break the seal. He felt he was rather hasty on the previous evening, when he sent a tart note requesting the money, and when the word was returned that it would come in the morning, he felt that human nature was not quite so bad as he thought—and he is now about to be in possession of that fee! The doctor tears the envelope with confidence and hope. He opens the letter. There is no money in it! He is disappointed. He is further disappointed, surprised and disgusted when he reads:

"DR. KINDHEART: A friend of ours, a lady, Mrs. Lightbody, from across town, called this morning to see your patient. She is not satisfied with your treatment and thinks that Marguerite is growing weaker; consequently she summoned her own physician, who is now in the house. Please do not call again until we send for you. Very respectfully,

"MRS. LIGHTHEAD."

A physician was called out of bed in the night to see a child suffering from croupous laryngitis. The physician was not young, nor was his health vigorous. The night was bitterly cold, and the sick-room to which he was called was anything but comfortable and congenial. He went home for his case of instruments, returned to the sick-room, performed a delicate operation, and remained through the night, lest an emergency should arise demanding his immediate presence there. His treatment gave instant relief and promise of final success. Tired and worn out by his labors of the night, the physician turned his thoughts on home. After giving directions as to the course to be pursued in his absence and until his return in the morning, he left the house enveloped in an atmosphere of prayers and praise by the good people of the family that his days might be long in the land and prosperity always lend him her smile; they would never forget his skill and kindness as long as they lived, and would without fail pay him for his night's services when he returned in the morning—just then they were so overcome by their feelings of gratitude and emotion that money was of small consideration and of minor importance. He came according to promise in the morning; as he entered the apartments he met a member of the family, and in reply to the query, "How is your brother?" he was told: "Doing well now, but two hours after you left this morning he had a change for the worse, and we thought it wise to summon another physician, who has left positive orders that no person be allowed to see the patient but my mother, who is in attendance, until his return. We would have sent you word not to call, but were too exhausted after the fatigue of the night to pay any attention to a thing of such small importance."

Recognizing the Situation.—An experience or two of this sort every week will bring the physician to his senses, and after a while he will get it through his cranium that people do not send for him to prescribe for them because they like him, or because they entertain a regard for him above or beyond other members of his profession. They call him in because they believe he can do the best possible for the sick one.

Ingratitude.—When they are con-

vinced or imagine some one else can do better, they throw him down like a dish-rag. They have, as it can be seen, no regard for his feelings or gratitude for what he has accomplished. They will trample him in the dust in their haste to bring some one else, not so competent as he, to carry on the work so auspiciously began. The homely saying,"Don't swap horses crossing a stream," has no weight here, for these people do a great deal of swapping—the further down in the social scale the more so—and during this swapping there is swamping, for the new horse often throws his rider, not being so surefooted as the old one. This will account for the awful mortality in crowded tenement districts in times of sickness or epidemic. They play with doctors as a child plays with toys, and change their doctors oftener than they do their underclothes, with the result that " too many cooks spoil the broth." It is hardly necessary to say the cooks don't get paid. It is the common lot of all physicians to have such experiences some time or other during their professional career, and those with quick perceptions and fine nervous organizations suffer the most from the base and cowardly ingratitude and often atrocious conduct of these miscreants, calling themselves human beings and claiming a common humanity with us.

" Who knows thee well, must quit thee with disgust,
Degraded mass of animated dust."

It takes about ten years' observation to know and understand the dear public, for whom and among whom we labor, and about twenty years to have a fair knowledge of human nature, as it presents itself inside and outside the sick-room.

His Charity.—There is no profession so charitable or so ready to give its services away. The physician, if properly approached, will never say "No" anywhere and everywhere that his services are needed. In an emergency he is there, binding up the wounds of the injured or ministering to the wants of the sick; in that hour of peril he is as brave as a lion, prodigal of his labor and skill, and as kind as a sister of charity. This professional gentleman is ever alive to the appeal of the needy, and always ready to relieve a fellow-being's pain. If he is apparently deaf to entreaty and slow to respond to a so-called emergency call, he has just cause for his action, and will in every case be able to show that the seeker after his services is worthless and undeserving of consideration, and, after all, not really in need of his services at all. He has broken faith with his physician many times before, and is prepared to do it again when the occasion presents itself. If the people kept faith with the physician as the physician does with them, there would be little need of that institution known as the dispensary, and that other colossal concern, the hospital, would shrink to its normal proportions. Then would the board of governors cease to play the rôle of mandarins, the superintendent that of Turkish pacha; then would the physicians and surgeons attached to those establishments be emancipated from serfdom, and the hospital itself cease to be an engine of oppression.

His Habits.—There is a saying among the people that "all good doctors drink"; that if a patient is fortunate enough to catch the doctor sober, his case will be speedily diagnosed and recovery rapid.

It is not an unusual proceeding for several sick people to be on the lookout for the doctor, as at this period the mind is in a formative stage, and, like the elements, in a nascent condition, eager to form new combinations and liberate lat-

ent force. At this transition stage his touch has a healing influence, and the words that fall from his lips are charged with potency and promise.

Physicians not overburdened with practice, having in mind this popular delusion, often rapidly spring into favor by simulating intoxication. Before he was commonplace and little noticed. Now attention has been directed to him; he has exploited himself at opportune moments; the people in the marketplace and on the thoroughfare recognize that the mental processes and nervous energies of this physician are rapid, interchanging and extremely exhausting, and that after all he is only paying the debt he owes to genius. He must have a stimulant to restore his nervous equilibrium, and what is so rapid in effect and so easily assimilated as alcohol? He cries for it and appropriates it with celerity and gusto. In time the mist will have cleared away and the popular illusion will have vanished, but often not before the physician retires with a competency.

His Triumphs.—The triumph of the physician is complete when, after his patient is dead, the family speak of him with respect and esteem. Death drew them closer together, and now binds them, as it were, with hooks of steel. Their loved one was too good to linger long here below. He was called away to fill a measure of usefulness beyond the vision of our grossness, but only to realize the fruition of our hope. Happy is the physician who can multiply these experiences, for his yoke is made easy and his burden light.

The Status of the Giants of the Profession.—It will be observed that the giants of the profession, the college professors and great practitioners of the day, are not, as a rule, the medical advisers of the four hundred. Their profession with them is the serious business of life. There are too much intensity and force of character in them to allow them to be obsequious and over-obliging. In their effort after knowledge they forget to cultivate the art of pleasing and the subtle ways that hynotize and control—no polite aphorisms in the drawing-room, that leave behind fragrant memories and make the ladies' breasts thrill with emotion as they anticipate new and repeated *séances!* These men have no tricks, no sly ways, no cards up their sleeves, no surprises to spring, no pleasantries to relate. Their appearance will bear evidence of this; features rugged as the granite hills, strong to resist the force that is in them, the *vis a tergo* of the mind—faces always impressive, often implacable, terrible when confronting stupid opposition or condemning imposture and hypocrisy. These homely faces reflect thought and pent-up force. Men with faces like these make history, revolutionize society, and rearrange the maps of states and countries.

The rubicund and unctuous belongings of the prestidigitator and Don Cæsar de Bazan of the fashionable sick-room are all absent here. Plain and direct, life has an object and time a value to him. He is business-like and brief in the sick-room. He came there for a purpose; that purpose accomplished, he retires without ostentation; in fact, these great men carry the odor of the counting-room and the directness of the bailiff into the sick-room so conspicuously that their presence is seldom welcome there. For this reason they are seen in the portals of swelldom only when the angel of death is hovering over the house and Gil Blas is fearful that he will not be able to bear the burden of disaster alone.

His Personnel.—The personal qualities of the physician are always to be

reckoned with on the balance sheet of success or failure: his magnetism, his ability to attract or repel—in short, all the details, items and attributes that make up his personnel. This will not consist of a strained and awkward effort to please, or of any effort on his part. It will be a quality or condition peculiar to himself, and of which he may be wholly unconscious; however, it contains the elements of success, the force to impel him along.

The versatile and dashing physician has neither the time nor the disposition to pour over cumbersome tomes and consult authorities on medical topics. He has an assistant to do that for him; to tell the truth, he has no great liking for these same authorities, for are they not too prosy, too dreary and altogether unsatisfactory as to conditions and final conclusions? Who can blame him for wanting none of them? It will be seen later he is a law unto himself, and a higher law. To his mind they are well-meaning but honest fools, toiling and bearing the burden in the heat of the day, while he is regaling himself at the opera or admiring the scenes from art or nature from his dogcart in the park or driveway.

"While the author is wrestling with the problem of disease,
His forte, to wheedle, manipulate, and please."

He has the genius or inspiration to distinguish between conditions, and determine beforehand and anticipate the quality of fatality. In the drawing-room his smile is expansive and illuminated; his features are mobile, impressionable, and pleasing. After casting an auspicious horoscope for the young lady at the piano, and assuring her mother that youth yet lingers with herself, that it is not difficult to discern whence her daughter's ready wit and beauty came, he talks of the opera, what constitutes a dancing set, which is the best French play, criticises the latest novel and anticipates the fashions for the season; he also says a word about golf, and incidentally mentions Newport and Lake George. These varied topics form an uninterrupted chain; the subjects blend into each other like the coloring of a landscape, and please the eye while amusing the fancy.

In the sick-chamber upstairs he drops his light and airy-fairy ways. His face is a picture now (a veritable Jekyll-Hyde transformation) — features contracted, cold and thoughtful; language measured and slow; manner severe and aggressive. He is diagnosing the case. His ponderous mind is like a sea swept by the fury of the gale. The intensity and concentration of thought are terrible. His mental perceptions have grasped and solved the problem; the diagnosis is complete. He apprehends disaster, though there is no danger signal flying, no high temperature, no rapid or irregular pulse, no respiratory sigh flashing like sheet lightning, with ominous torpedo-like explosions; and, with gravity mingled with emotion, he informs the friends of the patient that pneumonia is about to develop, but he thinks it can be aborted or diverted, or, as the electricians say of the current, "grounded"; so he furnishes the conductor, a lightning-rod, in the shape of a placebo, gives some details to his nurse, says he will send his assistant to the house immediately and that he will call himself in the evening, jumps into his brougham and is driven to the matinee. On his return from the matinee he visits a flower show at the grounds of the Horticultural Society. At home he instructs his assistant in some minor details, and dispatches him again to the sick-room. This assistant is often a clever fellow and understands his business well. He is ever

mindful that his first and only duty is to please his master. To this end he is diplomatic and crafty; nothing to affect his reputation, nothing to detract from, nothing to compromise his employer ever falls from his lips. He is as silent as a sphinx, thoughtful as a philosopher and companionable as an owl.

How It Affects His Success.—The master is drowned on a yachting cruise, and the mantle of success falls on this scholarly hack. He puts it on, but it is a hideous misfit. He would like to wear it, but it makes him look so ridiculous. It is so altogether out of proportion that he is not certain where to begin in order to remedy the inequalities and restore its symmetry. At a conclave of his friends it is decided that a change in construction would ruin the mantle. There is now nothing left for the hack but to wear it himself or give it away—but it will fit none of his friends; a spirit of loyalty to his departed leader, however, prevents him from pursuing the latter course, and he dons it himself. He suddenly recovers his voice and grows quite loquacious. He is called professionally to a house, not unknown to him, but one that his lamented predecessor knew so well. In the drawing-room he talks of the physical aspects of the moon, the solar spectrum and the belts of Jupiter, drops a few words in commendation of Milton's "Paradise Lost" and Gibbon's "Decline and Fall of the Roman Empire," and concludes with a reference to Munkacsy's "Christ before Pilate." Upstairs in the sick-room he is simplicity itself, and readily takes the family into his confidence. He declares that at present there is no danger, that it will be four or five days before symptoms are sufficiently developed to permit a positive diagnosis. In treatment he speaks about digestive ferments and assimilants; he also speaks like one having authority on leucocytosis and bacteriology. He departs with quiet dignity. His last words are: "If a change should come for the worse, be patient and hopeful, and immediately notify me." He hails a street car and alights at the rooms of the Historical Society.

The drawing-room below has a frosty atmosphere from his presence there. His dissertations and admonitions upstairs fell on unsympathetic ears. He is now standing alone, no shadow of greatness to hide him from the fierce criticism that beats with relentless fury on his head. The shafts of slander that are hurled at him from feminine tongues strike in vital parts. His enemies are numerous and still increasing. His patients are one by one, like autumn leaves, falling from his daybook; they drift with the tide of success, while he is left high and dry on the shore of disappointment and despair to ruminate on the fact that ability and skill in his profession are only a small part of the armamentarium of a successful physician, and that, though he may masquerade in his master's clothes for a while, he will in time be discovered, and in the end his defeat and humiliation will be more complete.

Some physicians fail who are thoroughly equipped. They possess all the elements of success, but, unable to control or to utilize the force that is in them, they are overwhelmed and destroyed.

"Viewed his own pinion on the fatal dart,
And winged the shaft that quivered in his heart."

Others fail because they had ideas and expectations of easily and suddenly acquired wealth. The medical schools are to a great extent responsible for this sort of failure. They hold out great expectations to the aspiring medico, and often fill their catalogues with glittering generalities, which speedily

evaporate into thin air. The student is charged and primed in the lecture and class-rooms with this elusive philosophy, and longs to pluck the golden fruit that he sees dangling in the orchard of popular favor. But alas! a rapidly flowing torrent separates him from the realization of this dream. He cannot hear the roaring waters as they are precipitated over the cataract, or see the gulch below; but the rapid pace he is running will bring him face to face with it soon, and his impetus will fling him into the whirling eddy, where too often these troubled waters hide him and his blasted hopes. He perished because his alma mater did not sufficiently instruct him and impress the fact on his mind that the road leading to success is hard and rocky, circuitous and full of inequalities, abounding in pitfalls and cañons; and further that eternal vigilance is not only the price of liberty, but of success as well. In his haste to acquire wealth and fame, he failed to acquaint himself with the difficulties to be encountered in pursuit of these objects.

Success in the practice of physic, then, depends not on the knowledge one possesses on that subject, but on the nice adjustment of the various mechanisms that enter into a perfect whole. The mental faculties must be rounded out by a keen appreciation of human nature, and of the fact that while this human nature is an element to be considered in any social equation, it is especially conspicuous and prominent in the practice of medicine.—(Also published in the Medical Record for Aug. 14.—EDITOR.)

Can Typhoid Fever be Aborted?

By J. E. WOODBRIDGE, M.D., Cleveland, O.

THERE are departments in medicine of which it may be truly said that "reasoning is deceptive"; in which actual experience gives the only light by which our footsteps may be guided; in which the clinical experience of a single observer, who has been wisely taught and has wisely followed the teaching, is of greater value as evidence of the justness of a conclusion, than is the subtlest reasoning of the most astute logician. This is eminently true of the subject which is presented for your consideration to-day.

The question which forms the title of this paper can be correctly and forcefully answered only by those who can speak from bedside experience.

The subject has already been fully and ably discussed, every imaginable argument has been adduced to establish a negative, but the force of most of these has already been broken by the silent footfalls of advancing science.

The effect of the antitoxins of diphtheria, the bubonic plague and other diseases, and the discovery of Laveran, that ague is a specific infection, in which every drop of blood is invaded by a living organism, coupled with the well-known fact that a single dose of one of the least harmful of drugs will not only abort an attack of malaria, but will effectually disinfect the blood circulating in every part of the body, from the tip of the finger to the ball of the toe, emphatically negatives

all the arguments that have been advanced to prove that the course of the specific infections cannot be interrupted, and especially that typhoid fever will run its course in defiance of all medication; yet these dogmatisms have been quoted, repeated, reiterated and applauded, as if they contained the very essence of all the wisdom of all the ages, past, present and future. They are not true, but the declaration that typhoid is a curable malady has been for years and is yet nearly always greeted with such "acrimonious and vituperative dissent," that it should not surprise us if the bravest men were to hesitate before reporting cases of "aborted typhoid fever," well knowing that such reports would expose them to the ridicule, invective and brutal sarcasms of those who, lacking their knowledge of the power of antiseptic medicine, receive with derision every allusion to the curative treatment of the specific infections. No wonder then that physicians who cure these diseases are afraid to publish their reports; no wonder that some physicians who promised to send me the clinical histories of their cases have never done so; no wonder that some of my friends, who kindly sent valuable statistics, with permission to use their names in this report, afterward withdrew their consent. The wonder is that under the circumstances any physician should have had the courage of his convictions and should have dared to allow me to use the data which are here presented. It was, therefore, with extreme diffidence that I wrote to a few physicians, who had previously written to me for specific information about this method of managing typhoid fever, asking them for reports of their cases for publication.

But the medical profession, it seems, is equal to any emergency, and there is no demand that can be made upon it in the name of suffering humanity, which it does not immediately supply, as the generous and noble responses that are embodied in this report clearly prove; and despite the fact that the ordinary difficulties which beset the gathering of statistics on any new method of treatment have been enormously augmented for the abortive treatment of typhoid fever, by the sharp criticism to which it has been subjected. I present herewith the statistics for 6,911 cases of typhoid fever that have been treated by the method I have advised, with quotations from the reports of a few of those physicians who have not only had the intelligence to institute a scientific treatment and with it to abort the disease, but have also had the heroism to brave the innuendo and criticisms of the molders of medical thought, and have supplied the data which must unequivocally place this heretofore most terrible sickness among the curable diseases. In signing these reports they have braved dangers as real as those which confront the soldier on the battlefield, and in speaking out in advocacy of the abortive treatment of typhoid fever, they have jeopardized their professional careers, but they have exhibited the true nobility of their characters.

At the last meeting of this association the method of managing typhoid fever, which is dealt with in these reports, being under discussion, certain arguments were advanced with the manifest object of detracting from the value of the treatment by showing that the typhoid fever of this country and during recent years is not the same disease that prevailed here twenty or thirty years ago, or that is today so much dreaded in foreign lands. These arguments must have sounded strange to the ears of scientists, who regard the bacillus of Eberth as the cause

of the disease, and who would naturally expect a given cause to produce a given effect under like circumstances. These arguments, aside from being unscientific, are in conflict with well-known facts. For example, from 1864 to 1869 there occurred in the Boston City Hospital 152 cases of undoubted typhoid fever, 21, or 13.81 per cent. of which died, while the duration of the illness of those that recovered was 24.25 days. In St. Bartholomew's Hospital, London, 1860 to 1864, there were 244 cases of typhoid fever treated, with 27 deaths, or 10.06 per cent., while in the same hospital during the five years preceding the opening of the discussion of this subject in this society (1893), 406 cases were treated, with 54 deaths, a death-rate of 13.2 per cent. In the Buffalo General Hospital, during the years 1892-3-4 (the only report to which I have access at present), 271 cases were treated to a finish, with 47 deaths, or 17.34 per cent. In the St. Louis City Hospital, during the years 1890 to 1891, there were treated 353 cases, with 73 deaths, or a death rate of 20.68 per cent. During the years 1889 and 1890 there were treated in the Providence Hospital, Washington, 72 cases, of which 23 died, a death rate of 31.94 per cent. "Murchison places the death rate at 17.45 per cent., which is perhaps none too high for this city (Washington) during the time mentioned (July 1 to October 31, 1895)." (Dr. Kober in Report of Health Office District of Columbia, 1895.) It is well known that a few other hospitals have reported lower death rates in a few instances, and it is frankly admitted that these numbers are too small to eliminate possible errors, or to constitute a safe basis upon which to found exact conclusions, but so, too, are those from which are obtained the marvelously low percentages so vociferously acclaimed by a few enthusiastic advocates of cold water. They are large enough, however, for the purposes for which they are introduced—not to antagonize any particular method of managing the disease, but to prove that typhoid fever in this closing decade of the nineteenth century has lost none of its old time virulence and intractibility; that it is still man's most insidious and relentless foe, running as tedious and obstinate a course to as certain death today as it did forty or fifty years ago.

The grave character of typhoid fever being proven, we are confronted by several important questions: Can the disease be aborted? Can its course be interrupted? Can its death rate be lowered? Can its grave symptoms be ameliorated? Can relapses be prevented? Can complications be averted? In other words, is typhoid fever amenable to medical treatment? For answer I submit the following reports, and in making the estimation of the value of the statistics, I beg you to remember that the physicians who have presented them were applying a method which was not only new to them, but which embodied practices that so far contravened all accepted theories, that many hesitated and did not dare, all at once, to throw away the old and fully adopt the new plans.

[Here follows several pages of reports, which we omit.—ED.]

These are a few quotations from the reports of 193 physicians who have treated (since their previous report, or since they commenced the use of the treatment) 2,078 cases, with 45 deaths. All of these reports have been received since I presented my paper to the Ohio State Medical Society, on May 21, 1897, which gave the statistics of 5,449 cases and 105 deaths, all that had been reported to that date.

The statistics now show 7,827 cases

treated, with 150 deaths, a death rate of 1.91 per cent. This includes every death known to have occurred under the treatment or any modification of it. Several deaths in which the treatment was known not to have been properly applied, a large number in which the treatment was not applied until after the patient was moribund or practically so, and eleven in which the patient was so near the end when the treatment was commenced, that death actually occurred within eighteen to forty-eight hours, and a few cases in which the death was not due to typhoid fever or its sequelæ, are included. In only seven of the fatal cases do the reports show that proper treatment was instituted on or before the eighth day of the disease.

The average duration of illness in the 4,935 of the cases which recovered, and in which it was given, was 12.7 days. Of the cases that recovered, 101 had intestinal hemorrhage. Ninety-five relapses are reported. Forty-seven were pregnant women, of whom two miscarried and died, six miscarried and recovered, and thirty-nine carried their children to full term, two giving birth to twins. In every instance in which the condition of the child is mentioned, it is described as "fine," or "healthy," or "fine and healthy." Forty of the cases were complicated with pneumonia and recovered.

In 85 of the fatal cases the cause of death is given, 12 being due to intestinal hemorrhage, 14 to perforation, 10 to pneumonia. Six of the deaths are said to have been due to meningitis, 3 to consumptions, 3 to Bright's disease, 2 to intussusception, etc. The stage of the disease at which the treatment was instituted is given in 69 of the fatal cases, in 10 of which it was from the first to the eighth day, in 10 from the eighth to the tenth day, in 14 from the tenth to the fourteenth day, in 16 from the fourteenth to the sixteenth day, in and in 19 from the sixteenth day to the end of the third week. In 66 of the cases the stage of the disease at which the treatment was commenced is not stated.

These are the statistics, and these brief quotations, together with the more than one hundred pages of closely typewritten excerpts from earlier reports presented to the Ohio State Medical Society, on May 21, constitute the verdict of the only jurors who are competent to render judgment, viz.: those who can speak from bedside experience. Among all these hundreds of reports, there appear but twelve adverse critics, not one of whom could possibly have been in possession of any accurate knowledge of the subject, not one of whom had written to me for advice, nor called to me in consultation, nor read the one published article in which I have given detailed directions for the management of typhoid fever. At least seven of the twelve, by their own admission, and one other certainly, did not use the treatment as advised, and the remaining five spoke from an experience limited to the treatment of fifteen cases, an average of three cases to each observer. This is an experience altogether too insignificant to justify an adverse criticism.

What are the salient features of this mass of reports of physicians who have broken away from the ideas of the past? These reports show that those who followed the directions given in my book. "Typhoid Fever and its Abortive Treatment," most closely, had the best results and have become the most enthusiastic advocates of the method, and, vice versa, those who diverged most widely from the prescribed course met with failures. They show that many dangerous modifications have been made, and that some of the

deaths are due to these alterations. They show that rapid recoveries have followed its use when first applied at all the different stages of the disease, and even after all hope had been abandoned by the attending physicians, who had used other methods, and in several instances after the supervention of alarming intestinal hemorrhage, they show rapid recoveries during the most careless and injudicious use of the most subversive counterfeits of the original prescriptions. They show the administration of such infinitesimally small doses as would make the most orthodox homeopath blush and of doses the size of which would make the rashest heroic of the past tremble.

Despite these encumbrances, the method of treatment has passed through the ordeal of its first years of trial by both its friends and its enemies, who have treated 7,827 cases with 150 deaths, or a death rate of less than 2 per cent. and a duration of illness of a trifle over twelve days. Under its benign influence the severity of the disease is greatly ameliorated, the symptoms minimized, all grave complications averted and dangerous sequelæ prevented. The tongue is quickly rendered moist, tympanites promptly relieved, excrements lose their offensive odor, delirium is rare and the "typhoid state" unknown. The appetite soon returns, and the patient expresses a desire to get up and eat solid food, which he may do, if he has been properly treated from a sufficiently early stage, so that ulceration of Peyer's glands has been prevented. Tedious convalescence is avoided, the patient generally passing rapidly from the fastigium of the disease to vigorous and robust health. These are results which have never before been obtained in hospital or private practice, in so large a number of cases, by so many physicians. They are results which were never before deemed possible. They have been obtained, in most instances, without the use of the cold baths, medicinal antipyretics, or alcoholic stimulants, all of which are generally unnecessary. They prove, by incontrovertible evidence, that typhoid fever can be aborted. They teach that it is amenable to curative treatment in all of its stages, and they go far toward proving that death or protracted illness are wholly unnecessary consequences of the disease.

In conclusion, I wish to say that I am deeply grateful to the physicians who have so courteously and courageously responded to my letters of inquiry, and in so doing have made it possible for me to submit this report.—(This paper was first published in the Journal of the American Medical Association. — EDITOR.)

Notes on Some of the Symptoms of the Menopause.

By G. H. MALLETT, M.D., New York.

FROM time immemorial it has been the custom for the laity and the majority of physicians to attribute all coincidental illness occurring during the menopause to the change of life. In no class of cases is this popular error so distressing or so fatal as in those where hemorrhage has occurred with increasing severity or frequency, or an almost constant sero-aqueous discharge has appeared and the patient or her physician then distrusts the unwarranted assurance that "all will come right after the change." An examination is made, and it is then found that a malignant growth has progressed too far to warrant any radical operative procedure. Nothing in medicine is so pitiable or distressing to witness as the shock and prostration of these patients when they learn their condition. Yet in almost every case of carcinoma observed in patients between forty and fifty years of age, the early symptoms have failed to be recognized, and have been attributed to signs of the menopause. Winter, of Berlin, estimates that of the cases of carcinoma that present themselves at his clinic, only 25 per cent. are operable—that is, suitable for radical operations.

Making due allowance for differences in opinion as to what cases are operable, 25 per cent. is a much larger proportion than is found in the clinics of this country. My experience at the clinic of the Woman's Hospital and at the Vanderbilt, has shown that less than 10 per cent. of the carcinomatous cases have any chance of benefit from a radical operation. These patients, almost without any exception, had consulted a physician, and all had told some friend of their symptoms, and yet there was not one but who had been told that her symptoms were those of the change of life.

This shows the lack of knowledge and the vague idea that the medical profession at large and the laity have as to what may occur during the menopause, and it has seemed to me that any contribution that serves to impress upon the profession the importance of distinguishing the symptoms of the normal change of life from those that indicate a local pathological condition, must be of some value; and with this hope these fragmentary notes are submitted.

Napier applies the term "climacteric" to "a well-defined period of life in woman, which is characterized anatomically by a series of processes of atrophic involution in the genital organs; physiologically, not only by the arrest of procerative adaptability (except in very rare instances), but also by the abolition of the periodicity in the activity of all the functions of the female system; pathologically, by a series of nutritive and vasomotor disorders exhibited in the field of general pathology; and shown in that of sexual pathology by a number of maladies connected with the atrophic processes proper to that age and also in all probability by a predisposition to the development of malignant disease."

The term "menopause" should include that period during which the menstrual functions become irregular, until it finally ceases. This usually occurs between the fortieth and fiftieth year. Dr. Bloom, of Philadelphia, as a result of his study, has placed the average age for American women at between forty-three and forty-four years. Cases of premature meno-

pause I have not found to be of very rare occurrence. Formerly, cases of late menopause were frequently quoted; but recent knowledge of gynæcology has enabled us to find local causes for the great majority of these cases.

For obvious reasons it is difficult to know what is a normal menopause. The usual course seems to be for a woman to miss a period or two, then have a regular menstruation, then see no flow for a longer interval, the quantity becoming less in amount at each period, the intervals becoming longer, and the blood diminishes until in two or three years the periods cease.

This course of events is accompanied by nervous phenomena; sometimes sudden sensations of heat and cold, or flushing of the face. These symptoms may cause little inconvenience and disappear when menstruation ceases. The above may be called a normal menopause, but it is an unusual one. Any of the symptoms that might be called physiological may be exaggerated into a pathological condition, and it may be difficult to tell where the one ceases and the other begins. Many authors claim that pre-existing abnormal conditions are made more pronounced during the menopause. This, I think, is apt to be exaggerated.

I shall not even attempt to enumerate the many disorders of the nervous, circulatory, or digestive systems, skin eruptions, etc., that occur during the menopause, but confine my observations to those symptoms that are of the greatest importance. These are hemorrhage and leucorrhœal discharge. In many cases there is a leucorhœal discharge which in some causes vaginitis and pruritus.

It is a popular belief that the monthly period may be more profuse and continue for several days longer than formerly, and may even appear between times, and that leucorrhœa at this time is of no importance, and that all will be well when the change of life is completed. This we know is often a fatal error.

The rule should be that in every case where a woman during the menopause loses an unusual quantity of blood, a local examination should be made, and with rare exceptions the cause will be found.

In order to determine what is the normal amount, a careful study of the previous history of each individual case should be made. Over six days of a free flow should awaken suspicion, and, if repeated, should demand an examination—as should a flow that recurs in twenty-one days, when the interval was formerly longer. If this is due to vascular congestion, caused by cirrhotic liver, cardiac or renal disease, or those constitutional conditions that are supposed to encourage bleeding (malaria, syphilis, etc.), then these facts should be established. In my experience hemorrhage from these causes is exceedingly rare.

Menorrhagia is quite frequently met with. Metrorrhagia is a most important symptom, and should always demand an examination when occurring during the menopause. One of the most important symptoms of the local pathological conditions, and one that should always demand an examination, is that of a slight hemorrhage following coition or the use of the vaginal syringe. I have found this to be the first symptom observed in many cases of carcinoma. In one case of carcinoma of the body of the uterus upon which I operated, this was the only suspicious symptom observed. Upon the introduction of the curette the disease was found to be extensive. I removed the uterus, but the disease recurred within a year. Had the importance of the above symptoms been recognized earlier,

the result might have been different. If the menopause continues, and the amount of blood lost does not diminish in three years, then the patient should be carefully examined.

While leucorrhœal discharges are of very frequent occurrence during the menopause, and in many women this discharge seems to take the place of the bloody flow, a profuse leucorrhœa should not be looked upon as physiological, until a local examination has shown that it is not dependent upon a local lesion; for this discharge may indicate an inflammation of the lining membrane of the uterus, which, neglected, may become something more serious. Discharges of a watéry consistency should make one suspicious of carcinoma.

In those classes of cases where a local examination is indicated, namely: when a woman who, during her menstrual life, has flowed three or four days moderately, flows for six or seven days freely during the menopause; when the intervals between the periods become shorter; when a flow occurs between the periods; when a slight hemorrhage follows coition, and when the irregularity of menstruation continues over three years. A local lesion in the large majority of cases will be found. This may be a malignant growth, most frequently a carcinoma, a fibroid, a polyp, a retroversion, an endometritis, or possibly an inflammation of the appendages.

In seeking local causes for the symptoms that occur during the menopause, the size of the uterus has been the most valuable guide to me. I cannot recall a case where a small uterus has given trouble during the menopause.

The diagnosis and treatment of the local lesions that occur during the menopause do not come within the scope of this brief paper.

Before closing, I wish to mention very briefly those troublesome and distressing symptoms of the menopause dependent upon vasomotor disturbances. I mean the flushes and sensations of heats accompanied by irregularity of the heart and palpitation, fullness of the head, pricking sensations, etc. These symptoms I have found more pronounced in those patients whose menopause has followed operative procedures. In the treatment of these cases after trials of the bromides, valerian, sombul, asafœtida, etc., I thought to wander in more recent therapeutical fields. I mean the administration of ovarian tissue. In the few cases the remedy was administered, with results almost similar to those recorded by Dr. Manzer, of Berlin, and Dr. Stehman, of Chicago. These results I hope to report at a later date. One case was of such interest that I will relate it briefly: The patient was twenty-four years of age. Two years previous I had removed both ovaries and tubes for pyosalpinx. Menstruation ceased after the operation. One month after the operation she began to have hot flashes, which usually terminated in cold perspiration. She thinks that she had about twenty a day. They increased in frequency and severity during the first six months, then became less marked, and for a year she had but two or three a week. During the last two months the attacks have increased in frequency. She has periods of uneasiness and anxiety, some dizziness and loss of memory, numbness of hands and feet. The patient has gained flesh since the operation and looks well.

In speaking of the treatment of her case, I told her of the benefits derived from the use of ovarian tissue, and mentioned the fact that menstruation had been known to recur after its use. She seemed greatly pleased at the prospect,

and I appointed a day for her to return to get the medicine. I found it impossible to obtain the remedy on the appointed day, so, rather than disappoint her, I gave her a tablet composed of iron and sombul, and told her that it would probably have the same effect. One month later she returned and told me that she felt much better, had had but eleven flashes during the whole month, and her other symptoms had improved correspondingly. Since she seemed so much improved I decided to continue with the sombul and iron treatment. One month later she reported that nearly all of the symptoms had disappeared, and that she had menstruated for three days. A local examination showed nothing abnormal in the uterus. In another month she informed me that she had menstruated again, having flowed four days, and now considered herself well. Since then, six months ago, I have lost sight of her. This case seems to indicate that suggestion is a prominent factor in the cure of some of these patients, as I had never obtained a similar result from the use of iron and sombul.—(Published also in the American Gynæcological and Obstetrical Journal.—EDITOR.)

A correspondent in one of our exchanges, advocates the use of opium in the last hours of life. Large doses, preferably by the skin, are recommended, and these are repeated as often as once in eight hours. While this advice may be all right, if it were given to a select number, yet to publish such an article to the profession is, to our thinking, exceedingly unwise. We have seen so many cases recover after all hope had been abandoned, that it is only by a good use of the imagination that we could think of a case where this advice might be accepted.

A tasteless medicine cup is advertised. No matter how disagreeable the medicine, this cup takes away all unpleasantness. The advertisement says "The cup sells itself," and yet we notice that a full page ad is taken in the most expensive position of the *Journal.*

The late Dr. E. W. Richardson, of London, said, in an address only a few weeks before his death, that cleanliness covers the whole field of sanitary labor. Cleanliness means purity of both air and water; cleanliness in and around the house; cleanliness of person; cleanliness of dress; cleanliness of food and feeding; cleanliness in work; cleanliness in the habits of the individual man and woman; cleanliness of life and conversation; purity of life, temperance—all these are directly in man's power.

Dr. Chas. Phelps, of New York, reports a fatal case of asphyxia from fæcal vomiting during the administration of ether. Dr. Jouley, in discussing the above case, said that several such cases had come under his observation. Other cases were also reported, showing that such a danger is by no means unusual.

One of our exchanges publishes the list of prominent names, and says that all these persons declare they have never seen a genuine case of hydrophobia. We have never seen a case of Asiatic cholera, neither have thousands of other physicians seen a case, yet we do not see how this in any way affects the question of the existence of such disease.

Editorials.

Journal of

Practical Medicine

ISSUED MONTHLY.

CHAS. H. STOWELL., M. D., EDITOR.

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The Beginning of School.

These are the days when school work is the hardest. After the long vacation it is very hard to settle down to work, and yet the lessons are about as long and difficult as at any time during the school year. What is the result? The headaches begin early in the year, and long before the close of the term they are all but unbearable.

This is especially true of the schoolgirl, who has not the opportunity to breathe the outdoor air equal to her brothers. She must walk properly to and from school, while her brother may run and jump as he pleases. She must walk about at recess, while her brother may play at leap-frog. The few days when the girl of fourteen should be at home each month are especially hard, and her school work drags most heavily. Schools will not be run to suit us until especial favors shall be given the girls, and not until the teachers shall know enough to discern what the headache and listlessness mean, and directly send the girl to her home for a rest. Girls at this age should remain at home a couple of days each month, and mothers should be told the importance of so doing. Again, something should be done to prevent this eternal cramming, at the very beginning of the school year.

One remedy for this evil is for physicians to take a more active part in school work. Now there are about all kinds of men on school boards, and but very few doctors. These should even make the majority of the boards. The fault is largely our own. We think we have no time for such things; but we have time, for all the time is at our disposal. Let us insist on taking some of it for school work, and then be active in correcting some of these things.

Stimulants and Children.

A Dr. Brunon, of France, has recently called attention to the terrible havoc being made in his part of the country from the use of alcohol and other stimulants by the young. He makes the remarkable statement that children only three and four months of age have their strong coffee and alcohol with the grown people. Dr. Brunon says that the rural population is degenerating, and insanity and crime are largely on the increase. He further says that the whole population of France is diminishing, and all industries are on the decline. And he believes this is largely due to the loss of mental and physical power from the use of stimulants at such an early age. The infant mortality is something appalling, and is not approached in any other country in the world of equal enlightenment. We wish all American mothers could understand the possible harm from a few drops

of brandy or alcohol to their child. No expectant mother, no nursing mother should think of taking these stimulants, without most careful consideration. We can scarcely imagine a case where alcohol is necessary for the new-born or young infant.

Fees of Experts.

At a recent meeting of the Board of Estimates of New York City there was considerable discussion over the payment of the bills of experts. One was that of Prof. Vaughan, of Ann Arbor. It was brought out that the doctor received his expenses and $300 a day for court attendance. This is indeed a surprise. Our readers will be quite unanimous in the opinion that this is far less than would be expected. It is less than one-third the fee we supposed this expert could command. Certainly there is nothing to be made at such wages.

Why Doctors are Skeptics.

A writer in the Kansas City Medical Index says: "If you go to church you see a dear sister who gets shouting happy at each protracted meeting. You know her last abortion was produced with a crochet hook! You know you presented your bill; she did not pay it. She doesn't like you now. She employs another doctor—and shouts louder than ever!"

And this shows what great fools some doctors are. We did not know before that doctors went to church to look at the "dear sisters," neither did we think this was what churches were made for. But they have queer ways out in Kansas.

Houseless Children.

The Medical Times says: "Many a household is rendered unhappy by the absence of children." We wish all unhappiness could as easily be remedied. If the parents have no children of their own, then why not adopt some? The answer would probably be the same as that made by the girl who had her too ardent lover arrested. When asked by the judge why she did not cry aloud and awaken the people in the house when these improper advances were made, she innocently replied, "I never thought of that!" The fact of the matter is there are hundreds of children awaiting adoption whose parentage is far better than would be the case if a child came in the old way to these homes. These are perfectly healthy, beautiful children, suited in every way to make a home happy, and yet childless homes are unhappy!

The Journal.

An editor of one of the New York monthlies asks: "Why is it that the United States does not contain one great medical journal?" Let us call the attention of this special medical journal that there is a journal published in Chicago, in the Occidental Building, 61 Market street, that is "one great medical journal," and also that its editor is one great medical editor, too. We are somewhat surprised, not much, that our New York monthly had not heard of this journal.

Nature's Wisdom.

An exchange says that nature has so planned it that when we lie down to rest the heart beats slower, and that gives this busy organ rest with the other parts of the body. "If this were not true the heart would soon wear itself out." Strange, isn't it? Strange that an engine does not have to work as hard when there is little resistance, as when there must be great power exerted! Some editors had better read a school primer on physiology.

Leading Articles of the Month.

Constipation in Young Children.—The late Prof. Chas. W. Earle once said to his class, "Don't dose the little people with drugs; keep them clean, feed them properly, and see that their bowels are kept open." The latter is often a hard task. Constipation is not a disease; it is a symptom. The cause may always be looked for before beginning the treatment. A healthy infant should have two, three, or even four evacuations in twenty-four hours; an older child always one or two. These should be yellow and unformed in very young children, the color and consistency changing with the age, gradually becoming formed and darker.

The causes of chronic constipation, as a rule, are either from some pathological condition of the intestines or indigestion, or it is the accompaniment of some of the constitutional diseases and those of the central nervous system.

Anatomically the intestines of an infant tend to produce constipation. The small intestine is comparatively longer, and the lumen narrower, than in an adult, as is the cul-de-sac in the sigmoid flexure; the length of the descending colon, small, contracted pelvis, feeble peristalis, certain pathological conditions, fissure of the anus; sometimes large masses of worms, a diminution in the amount of water or intestinal secretions, and from improper food. Bottle-fed infants, on whom "every kind of food has been tried," are the hardest to manage. This is due ti errors in feeding, human and cow's milk being two different things. Constipation is often caused by the lack of fat and too large a proportion of albuminoids, cow's milk containing less fat and less sugar than human milk. Thanks to Prof. Roach, of Boston, we can now have milk prepared at the laboratory by the physician's prescription, in proper proportions to suit each case and so overcome a great difficulty. Infants are often fed on starchy foods and some of the heaviest prepared foods, long before the saliva has appeared to do its work in digestion.

A child was brought lately to one of the day nurseries suffering with marasmus and constipation. The mother was poor and ignorant. She had been feeding the baby, a four-months-old boy, ever since its birth, on cracker crumbs soaked in milk and hot water, and fed out of a spoon. She thought "bottles not healthy." Her children, she said, were all born healthy, but "just pined away." She had lost three. The child was put on modified milk and somatose with a small dose of cod liver oil, and it certainly is improving. The constipation is being overcome by the diet with no medicine.

Constipation is often the after effect of diarrhea and the long continued use of those household remedies, castor oil and rhubarb, or repeated use of enema. In the older children, lack of attention, irregular hours, indoor life and lack of exercise, and that pernicious habit practiced by so many mothers of tying a child, as soon as it can sit alone, on a "chair," with plenty of toys to amuse it, and leaving it often for an hour or more. The child can easily be taught that the chair is for one purpose only, and a few moments' attention from the mother or nurse, minus playthings or entertaining, will soon establish regular habits.

Another important factor is the lack of fluids. It never seems to occur to many mothers that a child gets thirsty and

needs a drink of water, not milk. A baby should always be ordered a drink of water, either a little in a bottle or from a teaspoon, three or four times a day. When they get restless and fretful, and it is not feeding time, a drink will often restore them to good nature.

In the treatment of chronic constipation always look for the cause before giving drugs. If there is some congenital structural difficulty that will not yield to treatment it should be overcome as much as possible. It is always admissible with a constipated breast-fed infant to have the milk analyzed, and if it is not normal to improve the diet of the mother or supplement the lacking constitutents, and if normal a laxative diet will often accomplish the purpose. In a bottle-fed baby nothing is so efficient for feeding as the modified milk. The fat may be increased and the food thoroughly tested each day until the right proportions of fat and casein, suited to the individual case, are found.

Massage will often work wonders. A gentle kneading of the abdomen with the tips of the fingers stroking the ascending, transverse and descending colon. A little sweet oil may be used. This should be done faithfully, five minutes at a time, morning and evening.

In children over two years of age diet is all important. It is a common theory among the laity that milk is constipating. This is untrue if it is prepared as it should be. To half a glass of milk add two tablespoonfuls of cream and two of water. This will approximately give the right proportions of fat and casein. A starchy diet should be prohibited. The bread must be graham, or graham crackers. A good diet for a constipated child of three years is to give the squeezed juice of an orange the first thing in the morning. In older children a small glass of one of the natural sparkling waters will accomplish a great deal. If the "bad taste" is an objection, a little simple syrup in the glass will overcome the difficulty, and the "soda water" is easily taken. The breakfast should consist of oatmeal and cream, a glass of milk modified, a soft boiled egg with brown bread and butter. The heavy meal, which should always be given at noon, should be a piece of tender beef or mutton, a baked potato and a green vegetable. For dessert a baked apple or stewed prunes, in summer very ripe fresh fruit and a molasses cookie. Often a peeled raw apple will be very effectual. The supper which should be taken an hour before bedtime, may be some grits sweetened with molloses, or cream toast, plenty of bread and butter, with some stewed fruit or jelly. A small quantity of home-made molasses candy will delight the child and help the constipation. It should be remembered in ordering fruit for children that berries should never be given to a child under seven, and very sparingly even then.

A suppository that will stimulate the rectum is often all that is required. This is especially true of infants. Suppositories made of a cone of oiled paper or castile soap are most commonly used, and must always be used the same hour each day. Of the medicated suppositories the pure glycerine or gluten ones are the best, the former being most prompt, the latter, though slower in action, producing less irritation. If medicine is necessary, it should always be given first by the rectum, before disturbing the digestion of a child by giving it by the mouth. A suppository containing small doses of aloes, nux vomica, belladonna and sulphur in cocoa butter, given night and morning, gradually decreasing the size of the doses, and giving

only one day after improvement occurs.

Enemas should never be depended upon to effect a cure. They are only useful temporarily. When absolutely necessary a dram of glycerine to an ounce of water is the best. When there is fecal impaction, castor oil and oxgall in hot water may be used. Sometimes warm olive oil may be injected into the rectum and after that has been cleared out and if the trouble is higher up, use a soap and glycerine enema, given with a rectal tube. Injecting a small quantity of yeast has proved very successful. In one case after trying everything, a gradual dilating of the rectum accomplished a cure. In obstinate cases an examination of the rectum should always be made if necessary under an anesthetic and neoplasms or stricture treated accordingly.

Medicines given by the mouth are very unsatisfactory for chronic constipation. Often in anemic children a tonic with iron, quinine and strychnine, and diet are all that is necessary. The best drug is either the third extract or the aromatic elixir of cascara sagrada, preferably the latter on acconnt of the taste, given in small doses, always remembering that continued small doses are more effectual than an occasional larger one. Where there is much flatulence and the stools are very light colored, give small doses of calomel and soda bicarbonate for four or five nights, followed in the morning with some mineral "soda water." Castor oil should never be given for constipation, nor rhubarb, on account of its astringent qualities. It generally takes a great deal of persuasion to convince the average mother that these are not the two drugs "par excellence." Malt extract or maltine are both easily taken by children. They are laxative in themselves in obstinate cases. In anemic children, malt combined with cascara, taken for some time and gradually tapering off the dose, will often work wonders.

Galvanism is not very successful with children, especially with those of nervous temperament, though in cases where it can be used it is very effectual and should be tried after other measures fail. The most reliable cases are in those children in whom absolutely regular habits and diet are insisted upon. Drugs should only be a last resort.—Edith A. H. Fyffe, M. D., in Woman's Medical Journal.

The Objections to Condensed Milk as an Infant Food.—It is self-evident that the best standard by which an infant's diet can be judged is the infant's normal food —breast milk. It is not alleged by any one that breast milk is always of exactly the same composition, or that it can be exactly duplicated by any artificial food, or that the stomach of the average child has no power of adapting itself to variations in food. But the composition of average breast milk is well known and any food which varies widely from its proportions, with very little other evidence against it, must be condemned. If we know that a given food contains but one-eighth the amount of fat and one-third the amount of proteid found in normal breast milk, we can reach but one conclusion regarding it—that food is not suitable for continuous use. Yet these are the proportions of a one-in-twelve dilution of condensed milk. If made twice that strength, the solution contains but one-fourth the proper amount of fat, but at the same time an excess of sugar, the greater part being cane sugar. As a matter of fact, but few infants will digest condensed milk in a one-in-six dilution. It is rarely given in actual practice in a dilution of less than one-in-twelve. The

objections to condensed milk as an article of infant diet were pointed out very clearly by Dr. Kerley in a paper recently read before the Pediatric Section of the American Medical Association, an abstract of which will be found in this number.

No rational physician can believe that a food of such strength can form a proper diet for continuous use in any but the youngest infants. If farther evidence were needed, the clinical experience of men who see large numbers of children, is available. So far as we know no careful observer of large experience advocates the use of condensed milk alone, because children do not thrive on it. It is quite true that there are exceptions to this as to most rules, but it is folly to base one's practice upon a few exceptions rather than the rule. Dr. Holt, with his immense experience, says that he has as yet never seen a child reared exclusively on condensed milk who did not show, on careful examination, more or less evidence of rickets. Dr. Rotch is equally positive in his statements.

The number of children over four months of age fed exclusively on condensed milk, who show no sign of rickets or malnutrition, is extremely rare. They are frequently fat, to be sure, but they commonly present striking examples of "fat rickets." As a rule they well fulfil Dr. Kerley's description of them as an "ill-conditioned class of children, with their starved muscular and nervous systems, and catarrhal tendencies, who fall an easy prey to broncho-pneumonia in the winter and to the gastro-intestinal diseases in the summer, and to the infectious diseases during the entire year." As regards well-nourished children who have been reared exclusively on condensed milk, Dr. Kerley aptly remarks that "we hear of more than we see."

The chief objection to condensed milk as an infant food is the fact that it contains a slight deficiency of proteids and an excessive and almost fatal deficiency of fat.

If condensed milk is an improper food for infants, is it so irreparably bad that it cannot be changed or fortified so as to render it a desirable food? We would say that it cannot be made a desirable food; it may be made permissible. In many cases it is the only available food, and in some cases the most desirable that can be obtained. While granting this, we do not in the slightest degree advise its use when a better food can be secured. It is certainly a fact that the practitioner is sometimes obliged to use it. This occasionally occurs through obstinate persistency on the part of parents, but more commonly among the extreme poor, who cannot afford a more expensive food.

As the chief objections to condensed milk as an infant food are its deficiency in fat and proteids, two changes must be made to render it suitable for use: fat and proteid must be added. As the absence of fat is the greater defect of the two, it must receive chief attention. This deficiency may be corrected by the addition of cream—an impossibility among the very poor. If cream is not available, we may resort to cod-liver oil as suggested by Dr. Kerley. It is an excellent substitute and must be regarded as a food rather than a medicine, and must be given continuously, though the daily amount need not be large. The device of using a meat broth as suggested by Dr. Kerley for securing the proteid is an excellent one. As an occasional substitute for the broth, egg albumen may be utilized to supply the necessary nitrogen. The white of an egg may be thoroughly beaten up with the water with which the condensed milk is diluted. The chief ob-

jection to this plan is the difficulty of determining the proper proportions to be employed.

By thus modifying condensed milk a child may frequently be carried with fair success to the ninth month. His chances, however, of reaching that age without rickets will be far better with fresh cow's milk.

One advantage, it must be acknowledged, in the use of condensed milk is the fact that the child is less liable to be fed with an overstrong mixture than when fresh milk is used. One of the most frequent and serious errors in infant feeding is over-feedin. The fact that children do no worse on these excessively weak condensed-milk mixtures is but one of many proofs that they commonly receive more food than they require. If the doctor who is wedded to the exclusive use of condensed milk would not make his fresh milk mixtures four to six times as strong as his condensed milk mixture he would be much better satisfied with fresh milk.

In deciding upon the value of a given food, the physician should not fix his attention upon the present so closely as to entirely forget the future. He should consider the remote, as well as the immediate effects of the diet. His office is not alone to tide over a few months and keep a baby quiet at any hazard, but to lay the foundation for strong and vigorous childhood. He will fail to accomplish this if he prescribes a food lacking in its essential elements, though the child may for a few months seem to digest it more readily.—Editorial in Archives of Pediatrics.

The Whole of Cod-Liver Oil Demanded.—If cod-liver oil has been able to maintain its position as a remedial agent from a time "beyond which the memory of man runneth not to the contrary," its present popularity certainly has not resulted from any lack of sharp and sustained controversy. While the literature commending its utility in a wide variety of disorders is very copious, there has likewise been an abundance of articles, papers, and discussions, which contended that cod-liver oil was merely a therapeutic fetish; that it possessed no virtue that did not likewise reside in all forms of food fat; that it was no more readily assimilable than good butter; that, indeed, it was a positive bane to the patient in its loathsome taste, its disturbance of digestion, its provocation of biliousness, etc.

In my opinion these dissenting views constitute a most erroneous and deplorable heresy. Quite apart from the colossal volume of clinical testimony which bears witness to the real, genuine and positive utility of cod-liver oil in all wasting diseases, my own experience in practice sustains the view that cod-liver oil is an agent of incontestable value when intelligently, perseveringly administered.

The best and purest oil should be obtained, since the inferior oils are offensive in odor and taste. I thoroughly approve of a good emulsion when the microscope shows that it contains the entire oil in finely divided globules, and when I am satisfied that the percentage of oil claimed by the maker is present in the emulsion. Emulsification, moreover, forms a necessary step in the digestion of the fat, and the ready-made emulsion reduces the burden of labor devolving on the enfeebled digestive organs. The product which has given entire satisfaction in my practice, and to which I pin my confidence, is the egg emulsion of cod-liver oil (P. D. & Co.). This product does not deteriorate, is most satisfactory in taste and flavor, and contains, by volume, full 40 per cent. of the entire oil.

The absence of gum arabic, Irish moss, or the other emulsifying agents commonly used, is assuredly not the least of its advantages.

I have no faith in the so-called wines of cod-liver oil, containing, not the whole oil, but an extract of the alleged alkaloids. As urged by Professor Winter, cod-liver oil is a most complex body. Its beneficial properties reside in the aggregate of its constituent elements, and it is a piece of cruel jugglery to proffer a patient a part in lieu of the whole. The deception pointed out by Professor Hare —the entire absence of cod-liver oil from some of the advertised emulsions—merits the severest reprobation of the profession. There should be a fixed standard for emulsions, and the physician should have some positive assurance that the percentage asserted on the label is actually present in the contents of the bottle. —Dr. Frank Webster Jay, in the Journal of the American Medical Association.

Condensed Milk; Its Uses and Limitations in Infant Feeding.—In considering the value of any artificial food for infants, we must be governed by one standard—that of mother's milk, the nourishment the child has a right to expect.

An analysis of mother's milk shows that it contains from 3½ to 4 per cent. of fats, 2 per cent. of proteids, and 7 per cent. of sugar. The analysis of a condensed milk mixture, when diluted for use in the proportion of one part in six of water, gives us 1 per cent. of fat, 1.2 per cent. of proteids, and 8 per cent. of sugar, a greater part of the latter being cane sugar. It is extremely rare, however, that we meet with a child that is being fed on so strong a mixture, for the reason that it will almost surely produce colic and indigestion. The condensed-milk-fed children, as a rule, receive a mixture diluted to one-in-twelve or one-in-fourteen. The one-in-twelve dilution gives a mixture containing 0.5 per cent. of fat, 0.6 per cent. of proteids, and 4 per cent. of sugar. Comparing this with breast milk, it may readily be seen how inefficient it must be for a permanent diet. Even if the one-in-six dilution is given, it will still be inadequate.

Apparent as the shortcomings are, many children will do comparatively well in very early life on the weaker dilutions, that is, one-in-twelve or one-in-fourteen. There is sufficient of carbohydrate to produce heat, and the proteids, though small in quantity, furnish the requisite amount of nitrogen. Many thrive on the canned milk diluted one-in-twelve, until the third month; then the demand for the system exceeds the supply of fat and proteids. If the diet is continued, rickets and malnutrition of varying degree will almost always follow.

Of the many hundred marasmic and rachitic infants that the author has observed he believes that fully 95 per cent. had been fed on the meal foods or on canned condensed milk, chiefly the latter. Notwithstanding this, we occasionally meet with children that have been fed exclusively on condensed milk up to the ninth or tenth month, and that have thriven fairly well. They will usually present some evidences of bone rachitis, although the development otherwise will apparently be normal. These infants are held up to us as evidences of the value of the diet in question, and we hear of a great many more than we see. These isolated instances are to be explained by the fact that there are a few infants whose adaptation to abnormal conditions is so great that they cannot be injured by ordinary improper feeding.

Notwithstanding its many disadvantages, regarding which the author is very

positive in his statements, he says that he is compelled to give it to many children every year. He uses it chiefly among the very poor, the ignorant and the careless, who bring their children to the dispensary. The very poor cannot afford cow's milk at six or eight cents a quart, neither can they buy refrigerators and ice to properly keep the milk. The ignorant cannot appreciate and do not follow out instructions as to the diluting and care of the milk. We also sometimes find among the better class of patients those who absolutely insist on feeding condensed milk against our wishes. Hence it is that our only resource the year round with many infants is the sweetened canned condensed milk. It is inexpensive, it will keep sweet several days in hot weather without ice, on account of the added amount of cane sugar, and it is easy of administration.

Having this preparation with its imperfections forced upon us, how are we to use it? We must supply to the condensed-milk-fed infant the deficient amounts of fat and proteids. If the parents of the patient are well-to-do, cream may be added in proper proportion to make up the requisite amount of fat. Among dispensary patients, cod-liver oil supplies the deficiency. The dose must vary according to the age, the ability of the child to digest it, and the season of the year. The author prescribes from ten drops to a dessertspoonful, three or four times daily after feeding. As a rule it is taken readily. During the very hot weather the dose must be reduced or the oil discontinued if there are evidences of gastro-intestinal disturbance.

The proportion of proteids will still be low, but they may be increased by adding the condensed milk to a meat broth. One pound of lean beef is boiled in one quart of water until the liquid is reduced to one pint. It matters little what portion of the animal is selected so long as lean muscle-fiber is used. The broth prepared in this way, according to the analysis of J. S. Adriance, of New York City, contains 0.8 of 1 per cent. of proteids; so that if one part of condensed milk is added to twelve of broth, the mixture will contain 0.5 per cent. of fat, 1.4 per cent. of proteids, and 4 per cent. of sugar. This will answer for a child three months of age. Fat is supplied by the use of cod-liver oil. When the sixth month is reached, one part of condensed milk may be added to nine of broth. The percentages then will be, approximately, .75 per cent. of fat, 1.7 per cent. of proteids, and 5 per cent. of sugar. This, with cod-liver oil, will answer until the eighth or ninth month, when the critical nursing period will have been passed and barley and oatmeal gruel, with other meal mixtures, may be allowed.

The conclusions reached are as follows:

1. In the artificial feeding of infants, always determine as exactly as possible the percentages of the food constituents.

2. Condensed milk alone is an indifferent substitute for mother's milk, no matter what the age of the infant may be.

3. Condensed milk alone should not be given after the third month.

4. Condensed milk, fortified, may be made an acceptable diet for infants; alone, it is a food upon which a certain number of children exist until age or changed conditions allow of a better diet; and inasmuch as there is nothing to take its place among the very poor, its value to them is inestimable.—Chas. G. Kerley, M. D., in the Medical News Archives Pediatrics.

The Indigestion of Breast Babies.—For many reasons less attention has been paid to the gastro-intestinal affections met

with in breast babies than in those nursed artificially. Breast milk is the natural and ought to be the sole food of the infant, under physiological conditions, during the first year of life. Unfortunately there is too often a departure from the normal state, and the child, and perhaps also the mother, may suffer during the lactating period. The natural pride and instinct of the mother is apt to lead to the presumption that all is going well with her and the infant, when, perhaps, in reality she is not a good nurse, and the child is suffering more or less, and not thriving.

In America the question of infant feeding in all its aspects has received the well-merited attention which it deserves, and which is has not met with in this country. The greater prevalence of diarrhœal disease during the tropical summer of the American continent has stimulated study and research on this important subject. Milk laboratories have been established in the larger cities, and the feeding of infants has been placed on a comparatively sure and scientific footing. Owing to the researches of such men as Jacobi, Rotch, Holt, Lewis, Smith, Meigs, and others, we are now furnished with scientific data to guide us in the study of the subject. In the author's own country the question of our milk supply is now receiving some attention from sanitarians, but there is as yet no ready means available to the general public of obtaining pure or properly sterilized milk on a large scale, nor of having milk analyzed or tested in laboratories established for the purpose. Whenever the milk of the mother is defective in quantity or quality, the child is apt to suffer. It does not thrive or grow at the normal rate. Instead of being plump and firm and happy, it is soft and flabby, and is always crying, and never appears to be satisfied. Its skin is harsh and dry. The tongue is somewhat red, often slightly furred. Vomiting is not infrequent from gastric catarrh. The stools are unnatural and present various appearances depending on the quality of the milk. They are generally loose, and seldom have the natural mustard color or consistency; but are usually pale, and often of an ashy gray color, sometimes greenish, or mixed gray and green. The soft curd of the mother's milk is present undigested in little granular-looking masses. There is an excess of mucous secretion, sometimes little streaks of blood. As a rule, indigestion of mother's milk is more freqeuntly intestinal than gastric, diarrhœa being more common than vomiting. This appears to be largely due to indigestion of the fatty and proteid elements of the milk. Infants, in regard to their digestive capabilities, are but little men and women, and it is certain they have their idiosyncrasies likewise. The milk of a mother seems to be suited to her own child under physiological conditions.

These two cases are very ordinary ones, and typical of two of the conditions giving rise to indigestion in the infant. Irregular suckling is one of the commonest causes of indigestion in babies. It produces a milk too concentrated, which inevitably causes indigestion in the child. Regulation of the suckling is generally sufficient to give relief. Irregular suckling may be due to two principal causes. It may occur in cases where the milk is normal in quantity and quality, from bad habit on the part of the mother in being over-anxious about her child, and carelessly giving it the breast at irregular times or whenever it cries. The more frequent cause, however, is deficient quantity of milk. In this case the child is unsatisfied and gets the breast too frequently in consequence, with the result

that the milk becomes too concentrated and causes indigestion. The remedy is the addition of some substitute feeding.

Inseparably connected with the question of maternal feeding is the no less important one of the artificial rearing of infants who are unable to obtain breast milk. The huge mortality of infants under one year is hardly reduced to a lower level than it was half a century ago, when in England and Wales no less than 76,328 children under twelve months died, out of a total of 350,101 deaths in one year. Want of breast milk and bad artificial feeding are largely responsible for this. Surely it is our duty, as a profession, to try and stem this tide of mortality. There is no way to attain this end but by education—medical education; and let us hope that in the near future we will be in a better position in this respect, and have greater facilities for showing good results in what, it must be admitted, is an important branch of preventive medicine too much neglected.—Medical News.—Medicine.

Empyema in Young Children.—Empyema in children has always been for many reasons a disease of the greatest interest and importance, of interest on account of the differences of opinion often arising as to treatment, of importance because there is always a great likelihood of the presence of pus in the pleural cavity being overlooked. Empyema in children should not be a particularly fatal affection, provided that an early and correct diagnosis is made, and that prompt measures are adopted for the removal of the purulent matter. According to Gerhardt most of the pleurisies occurring in children are purulent, and it has been estimated that fully two-thirds are metapneumonic. That the pus should be removed as quickly as possible is agreed upon unanimously, but in regard to the means to be employed toward this desirable end opinions still differ. Solis Cohen says that absorption of pus from the pleural cavity is practically a myth. Although it is possible for small effusions to be absorbed, it may be laid down as an axiom that where there is pus present the only rational treatment is evacuation. Now as to the means, the late Dr. Sturgess, of England, believed that resection of rib was necessary, and that the greatly lessened rate of mortality was altogether due to improved treatment in this respect. Some even go further, and insist on the necessity of washing out the cavity. Dr. Joseph Winters does not think that resection of the rib is indicated, but holds that incision and drainage is sufficient. He, however, is a believer in irrigation, and contends that washing out by means of hot water at a temperature of 125° or 130° cannot have a prejudicial effect. Dr. E. Cautley gave an account at a meeting of the London Medical Society, of eighty-six cases treated by various methods, which gave a mortality of 16.6 per cent. The rate of mortality was about the same after resection as after incision, except that five out of six cases under two years old treated by resection were fatal. From a sifting of the mass of evidence on the subject it would appear that incision and drainage should be the treatment pursued with patients up to two years of age, and that after that period the surgeon should use his own judgment and perform resection if he deems it advisable. The death rate from infancy to the age of three years is very high, nearly 50 per cent., but after the age of three the prognosis is much more favorable. The use of cholorform during the operation is not contraindicated. Dr. Winters advises that the patient should not be fully under the influence of the anesthetic, as it is de-

sirable that he should cough and if possible cry, so that the explosive expiratory efforts should forcibly expel the pus from the pleural sac. The most important point in the successful treatment of infantile empyema is to diagnose and operate quickly, and it is probable that a fatal issue at any age is rather the result of neglect to recognize the true nature of the case at an early period than from the operation itself. The after treatment of empyema must be left to the discretion of the medical attendant, and conducted on ordinary surgical principles. Naturally the patient should live under most healthful conditions possible, plenty of light, fresh air, and easily digestible nourishing food. Pure air is our best remedy, and it is to be regretted that it is not more constantly at our disposal.—Editorial in Pediatrics.

Surgical Hints.—It is better to have too many assistants than too few.

A paronychia or "run around" rarely demands incision. Daily wet dressings with firm gauze packings between the nail and skin will usually effect a cure. The first packing hurts, the others as a rule do not.

When you boil water to be used in an operation, you should at the same time boil a vessel with which to dip it out, and this vessel should never be set down in an undisinfected place, for it is necessary to have its outside as clean as its interior.

In an emergency operation, if you happen to be without operating gowns, remember that a newly-washed night shirt will serve quite well. It is far cleaner than one's external clothing, and will protect the patient against the accidental contact of instruments or ligatures with one's surgically unclean shirt or trousers.

A patient with anal fissure should be instructed to smear the orifice inside and out, as well as he can, with vaseline before each movement of the bowels. This will in great measure prevent fæces from clinging to the parts in passing, and will also greatly facilitate the passage of the stool. Do not advise such a patient to use glycerine locally.

If you happen upon a recent compound fracture where the end of the bone still protrudes through the opening which it has made in the skin, take every precaution that this end may not slip back until it has been thoroughly disinfected. In many instances it is safer to scrub and clean the surrounding parts, and then after forcing the fragment a little farther through, to cut it off. When this has been done the fracture may be reduced with a fair prospect of aseptic healing.

Fissure of the anus usually gives rise to intense pain which often lasts many hours after stool. This may be greatly alleviated by inserting a very narrow slip of moist gauze with a flat probe, so that the gauze lies against the raw surface of the fissure. It gives the same relief which is experienced when a light packing is placed between the skin and the nail, in cases of so-called ingrowing toenail, and for the same reasons, namely, it prevents inflamed tissues from touching each other and drains away irritating wound secretion. Weakly iodoformized gauze is best because of the local anæsthetic action of the drug, but be sure that no idiosyncrasy exists forbidding its use. —International Journal of Surgery.

Extraordinary Death of a Physician.—Dr. Carrier, of Varennes, France, has recently died under painful circumstances. The daughter of the patient to whom he had given a hypodermic injection of morphine, seeing her mother very quiet, thought she was dead, and

cried out that the doctor had poisoned her. Dr. Carrier was seized with a fainting fit, and as he fell, struck his head against the mantel-piece, receiving injuries which resulted in his death a few hours later, just as the patient awoke, much relieved by her peaceful sleep.—Med. News.

Fruit Diet a Cure for Nervous Headache.—Scientific investigation has shown that fruit is, of all foods, the most useful as a means of purifying the stomach and alimentary canal from germs. The idea formerly held by physiologists that germs were necessary as an aid to digestion has been proved to be groundless by the investigations of Nuttall and Thierfelder, who raised a guinea-pig in a glass house absolutely free from germs, and it proved to be stronger and healthier than others of the same litter raised under ordinary conditions.

These observations have been confirmed by bacteriological examinations of the stomach in several thousand cases by the chemists and bacteriologists of the Laboratory of Hygiene of the Battle Creek Sanitarium, which have shown that a healthy stomach is capable of perfectly digesting foods which are wholly free from germs without the presence of germs in the stomach. In this investigation, a test-meal of granose, a perfectly sterile food, was taken, and at the end of an hour a portion of the stomach fluid was removed and examined bacteriologically. It has been found that in healthy persons the fluid thus obtained is wholly free from germs.

A study of the germs found in the stomach in cases of disease has shown that they are, as a rule, incapable of growth in the juices of fruits. This led to the experiment of feeding patients whose stomachs were infected with germs, upon a pure fruit diet. It was found that the thickly coated tongue quickly became clean, and other symptoms of stomach infection rapidly disappeared. The observations made by Bouchard and Meinert and verified by a very extensive study of the subject conducted by the Battle Creek Sanitarium have shown that migraine, nervous headache, sick-headache—and in fact most headaches—are due to the absorption of poisonous substances produced in the stomach and intestines by the fermentation and the putrefaction of the food substances. Hence it is clear that the best means of curing this condition is the disinfection of the alimentary canal, or the eradication of the germs from the stomach and intestines. The method of accomplishing this by the employment of an exclusive fruit diet has now been in use at the Battle Creek Sanitarium for more than a year, and with most excellent results. Not infrequently persons whose tongues have been thickly coated, resulting in extreme nervous exhaustion and a variety of other symptoms, have been relieved almost immediately upon the employment of a fruit diet.

The writer, while on a visit to New York, a few days ago, met a prominent business man who complained of a constant headache which rendered his life almost unendurable. Three or four hours after every meal he found himself suffering from severe pain in the head, unfitting him for business, and producing great depression of mind. A fruit diet was suggested to him. The gentleman exclaimed, "Fruit is the worst thing that I can possibly eat." It was suggested that such simple fruits as watermelons, peaches, and grapes might be taken without difficulty; but the gentleman declared that the watermelon was, of all things, the worst for him. The suggestion was

then made that possibly the difficulty arose from the combination of fruits with other foods that were incompatible,—especially with vegetables. The gentleman was quite incredulous, but nevertheless said that he might make the experiment of eating fruit alone for a meal or two now and then. A few hours later, as the writer was just about to take the cars at the station, he felt a tap on his shoulder; and on looking around, there was the gentleman before referred to. Said he, "I ate a whole watermelon for dinner, and did not have the slightest discomfort afterward, but I have got a splendid appetite for supper."

A fruit diet for a few days is vastly to be preferred to a dose of salts, mercurial products, seltzer aperient, or any other of the popular remedies for so-called "biliousness." It is not the liver that is at fault, as is generally supposed, but the stomach. A person suffering from biliousness is in a state of general poisoning from the absorption of poisonous substances from the alimentary canal. The majority of persons would find it advantageous to take nothing at all but fruit for breakfast, making the dinner the hearty meal, and the supper, if supper is taken, also of fruit.

Periodical attacks of "biliousness" may be avoided by adopting a fruit diet for a day or two prior to the time of the expected attack. A fruit diet for one day out of each week, or for an occasional meal will also prove helpful. In this country we suffer much more from overfeeding than from deficiency of food.—Editorial in Modern Medicine.

The Dietetics of Glycosuria.—In the treatment of diabetes mellitus the diet has been almost universally considered to be the one all-important matter. The disease, probably as little understood heretofore in its intimate nature as any one in our nosology, has been held to consist mainly in an abnormal excretion of sugar, and all other symptoms have been generally held to be dependent upon this. Just how excessive sugar excretion could produce the whole series of morbid phenomena no one has successfully endeavored to explain; the fact has been accepted and has been made the basis of the treatment. It has been practically assumed that the excess of sugar in the urine must be due, chiefly at least, to an inability of the system to dispose of sugar-producing foods, which normally constitute the larger bulk of our diet, and that the waste thus brought about was, if not the direct cause of all the morbid symptoms, at any rate an index to the gravity of the condition of the sufferer. The carbohydrates were therefore considered his greatest enemy and naturally to prevent their entering the system was the first indication for the treatment. It can not be claimed, however, that the prognosis of the disorder has been decidedly improved, in spite of the elaborate dietetic tables that have been contrived, or even that life has been materially prolonged by their means in the more advanced stages of the disease. It certainly is not made more endurable, even in the milder forms, where dieting does limit the sugar excretion. In the severer types where sugar continues to be excreted in spite of an exclusively proteid diet, the latter is certainly ineffective enough to have its usefulness questioned, and that being the case it may be asked if the stereotyped diabetic diet lists, impracticable as they are in some cases, and uncomfortable enough in all, should be adhered to. In fact, have we not followed a "post hoc, ergo propter hoc" reasoning too blindly in taking the excretion of sugar as the one

important clinical symptom of the disease? The relation of sugar in the urine to the other symptoms is not so clear that we must necessarily assume it as causal and believe that with its reduction everything else in the morbid syndrome will mend. It may be, and probably is, only one incident of the general vice of nutrition that constitutes the disease and which in all probability depends primarily upon some serious disturbance of the central nervous system. Pavy has thought that this must be sought for in the vasomotor centers causing capillary dilatation and hyperoxidation of the blood, but, however it may be brought about, the probability of the original lesion of diabetes being in the nerve centers is one that should be recognized. How this is to be reached by treating the one symptom of glycosuria is not altogether demonstrable.

In the very thorough study of this subject by Dr. Munson, published in the Journal a few weeks ago, he states "that there has apparently been of late an undercurrent of thought to the effect that possibly the complete exclusion of carbohydrates from the diet might not be an unalloyed blessing to the diabetic." His papers, however, form it is believed one of the most complete and thorough discussions of the subject and its literature in our language, and his conclusions, illustrated as they are by a case in his own actual experience, are certainly worthy of careful consideration. The facts that sugar is produced in the system by the splitting up of proteids, and that the most rigid exclusion of carbohydrates does not suppress its production or its excretion in extreme cases, that even the diabetic requires a certain proportion of sugar in his blood and possesses still a power of consuming it, and that this, if not supplied by carbohydrates, must be furnished by the albumins, are all very significant, and it is remarkable that more attention has not been given them before. In fact, aside from possible local effects upon the urinary passages, we know of no certain reason why a certain excess of sugar ingested should not be normally excreted without serious systemic disturbance, as is the case with many other substances; and this is the fact in ordinary dietetic glycosuria, which, considering the ordinary unlimited ingestion of saccharine substances, must be more frequent than is commonly supposed. In diabetes, however, this single symptom has masked the whole pathology of the disease, has become the disease itself in the mind of physicians generally, and therefore the sole object of the treatment. There is hardly another so striking example of this error of taking a part for the whole in all medicine—assuming these views to be correct.

Dr. Munson is of course not the first to except to the accepted views of the treatment of diabetes; there has been, as he says, an undercurrent of opposition to them for some time past. For example Saundby, at the International Medical Congress of 1894, read a paper favoring a change in the general practice of withdrawal of all carbohydrates from the diet of diabetics, and for allowing them so much of such substances as did not materially increase the urinary sugar, and others have published cases showing, like the one given by Dr. Munson, that the patient's general condition improves under such allowance. If this instead of the quantity of sugar excreted were generally taken as a guide, it is probable that there would be some change in the common views as to the therapeutics of diabetes. There would at any rate be probably less complications from the produc-

tion of auto-intoxications by a diet that is abnormal in health, and that can hardly be expected to be all that is demanded by the disordered organism.

Even if Dr. Munson's opinion, that the sufferer from diabetes requires sugar in his diet even more than a person in perfect health, be not accepted as too extreme, there is still evidence enough to warrant a very material alteration in the hitherto accepted views of the necessary dietetic treatment of the disease. If possible, we should aim to meet the neurosis itself, and not be led aside by a single predominant symptom, and this can not well be done by still further crippling an already depleted system.—Editorial in the Journal.

Hunting a Lost Ball.—The Roentgen ray and the location of bullets brings to mind an old army story about a general officer, who, having been wounded in the fleshy part of the leg, the surgeons made many incisions. At last, growing tired and worn out with pain, he asked if they were nearly through dressing his leg. "I am looking for the ball," said the operating surgeon. "Why the devil did you not say so before?" roared the officer, "I have the ball in my pocket."—Journal of the American Medical Association.

The Konig-Maas Method of Restoring Persons Apparently Dead From Chloroform.—Green says that the following method will accomplish the above. Stand on the left side of patient, facing him; place the ball of the thumb of the opened right hand upon the patient's chest, at a point mid-way between the apex beat and the sternum. Press in the thoracic wall with a quick strong movement, at a rate of 30 to 120 to the minute. The efficacy of the Konig-Maas method lies in its direct action upon the heart, restoring the circulation and also the respiration. A distinct pulse wave may be seen in the carotid arteries of the fresh cadaver, if the precordium is quickly and forcibly compressed.—Med. Rev.

Cancer of Rectum.—Cancer of rectum can be cured in over ten per cent. of the cases:

The mortality from radical operation, though still considerable, is not alarming, and is decreasing with every year's experience:

The radical operation prolongs life on the average over 100 per cent.:

As a palliative measure excision is far more successful and beneficent than any other:

The sequences, though numerous, are not at all intolerable, and should weigh little when it is a question of so serious a disorder as cancer of the rectum.—Tuttle, in Medical Age.

Mortality among Foundlings in Italy.—The Roman correspondent of *The Lancet* called attention a short time ago to a foundling asylum in Naples, in which in the course of two years among eight hundred and fifty-six patients admitted, only three had survived. Among other causes for this incredible mortality was the nursing of three or four infants by one wetnurse. An only less ghastly exhibit is made by the foundling hospitals of Venetia, the area of which is twenty-four thousand square kilometres, and the population nearly three million inhabitants, and which sends annually to the foundling hospitals a mean of one hundred and forty thousand infants, the vast majority of which are illegitimate.

Among this number the mortality is fifty-two per cent., as a result primarily of want of nourishment, and secondly of neglect of every description. The administration of the several hospitals costs annually some $3,000,000, derived from the bequests of benefactors and the contributions of the provinces and communes.

Nuts and Fruits for Brain Workers.—Green figs are excellent food.

Walnuts give nerve or brain food muscle, heat and waste.

Raisins are stimulating in proportion to their quality.

Pine kernels give heat and stay. They serve as a substitute for bread.

Apples supply the higher nerve and muscle food, but do not give stay.

Oranges are refreshing and feeding, but are not good if the liver is out of order.

Dried figs contain nerve and muscle food, heat and waste; but are bad for the liver.

Blanched almonds give the higher nerve or brain and muscle food; no heat or waste.

Green water-grapes are blood purifying (but of little food value); reject pips and skins.

Blue grapes are feeding and blood purifying; too rich for those who suffer from the liver.

Tomatoes. Higher nerve or brain food and waste; no heat; they are thinning and stimulating. Do not swallow skins.

Juicy fruits give more or less the higher nerve or brain, and some few, muscle food and waste; no heat.

Lemons and tomatoes should not be used daily in cold weather; they have a thinning and cooling effect.

Prunes afford the highest nerve or brain food; supply heat and waste, but are not muscle-feeding. They should be avoided by those who suffer from the liver.

The great majority of small fresh seed fruits are laxative.

All stone fruits are considered to be injurious for those who suffer from the liver, and should be used cautiously.

Items.

Hæmoptosis is a rare symptom of tuberculosis in children.

Birds and fishes have tuberculosis, and of the same kind as that found in man.

Pediatrics says that the most prominent symptom of scarlet fever is the rapid pulse.

Queen Victoria has a very good-sized family. Her grand-children and great-grandchildren now number just thirty.

The London Lancet says that of nineteen physicians who were superintendents of Keeley cure establishments, ten have entered hospitals for treatment where no specifics are used.

At a recent meeting of Medical Directors of Life Insurance Companies it was declared that after the age of forty the mortality among beer drinkers was three times as great as that among total abstainers.

A German physician reports some experiments that lead him to conclude that absolute alcohol has no disinfecting power whatever. A fifty per cent. solution, however, appears to have this desired property.

Don't it beat all! Even so early some of the journals, one in particular, is pitching in to Dr. Paul Paquin because he is trying to make an honest dollar out of his serum. When any one is apparently on the eve of making a cent more than some one else that person is quite likely to get awful mad about it.

The British Medical Journal tells of a hog recently killed that had in its stomach a number of bank notes of high value enclosed in a metal sheath. The notes were in good condition. We can tell a better story than that. We know of live English hogs, possessed of a good number of bank notes, too. They do not literally eat their bank notes but it takes an awful lot of these notes to purchase what they eat.

An English court has recently decided that an American physician with a genuine diploma from a recognized medical school is at liberty to practice medicine in Great Britain, but must not assume any titles implying that he is a registered British practitioner.—Med. Age.

The seed theory of appendicitis has become so widespread among the laity that it is said to have interfered very seriously with the sale of small fruits this season. The result is that the unsuperstitious and the "appendicized" are enjoying an abundance of the healthful berries, to the scandal of their timid neighbors.—Record.

Marcy's operation will give the best results in inguinal hernia—I mean the operation by closing the internal ring under the cord with kangaroo tendon. It is displeasing to me to have this operation called Bassini's because the operator does not happen to use Marcy's needles or cobbler's stitch.—Rockey, in Medical Age.

A veteran living in the interior of Massachusetts recently gave a testimonial to a patent-medicine manufacturer, stating that he had been entirely cured by the nostrum. It seems that he was receiving a pension for the ills of which the medicine cured him, and that when the authorities learned of his recovery his pension was cut off. Is he likely to suffer relapse? and if he does will he get back his pension?—Boston Medical and Surgical Journal.

Therapeutic Suggestions.

The Medical Record says that ergot is now scarcely ever used in midwifery.

To make a good aristol ointment first mix with vaseline oil and then with the vaseline.

The Medical Times says that large doses of salicylic acid may cause a green color to the urine.

If alcohol be immediately applied to a burn from carbolic acid, all burning and tingling sensation will disappear.

To remove cerumen from the auditory canal, use water as hot as 105° F. and employ nothing but persistent syringing.

For vomiting of pregnancy try a twenty per cent. of menthol in olive oil; ten drops on sugar whenever nausea occurs.

Cold, applied to the abdomen, increases the secretion of the tracheal mucous membrane; heat has the opposite effect.

The Philadelphia Polyclinic says that when the salicylates are not well borne, a single dose at bedtime in milk will be well borne and rapid in effect.

Nitroglycerin acts very differently on individuals. Therefore, it is better always to begin with a small dose, and if no toxic symptoms appear, gradually increase the amount.

A case of fatal poisoning is reported where a child five years of age took "a small amount of undiluted whisky" on an empty stomach. Death took place fifty-six hours afterwards.

A number of cases of poisoning by acetanilide have been reported as occurring among children and a recent writer says that it should be excluded from the surgery of young children.

A writer in Practical Druggist says that a specific for toothache is found in phosphorated oil. First cleanse the cavity, then plug with wool soaked in the oil. This oil is made by dissolving one part of phosphorus in eight parts of expressed oil of almond.

In a case of acute tonsillitis Dr. Eshner prescribed cinchonidin salicylate, 5 grains thrice daily; and a gargle of potassium chlorate, 5 grains to the dram of glycerin and water, to be further diluted with water and used four or five times a day.—Philadelphia Polyclinic.

The Lancet-Clinic says that during the administration of ether the most alarming danger signals are sudden pallor of the face, dilatation of the pupils, and darkening of the blood. When these symptoms present themselves the anesthetic should at once be withdrawn and resuscitating measures instituted.

Follicular tonsilitis is an acute infectious disease and should be treated as such. Whilst systemic treatment is of paramount importance, local treatment should not be neglected. According to Dr. Gibb each crypt should be carefully cleansed with a strong solution of hydrogen dioxid, after which applications are to be made to each with a solution of silver nitrate, 40 or 60 grains to the fluid-ounce. Involvement of the pharyngeal or the lingual tonsil should receive similar treatment.—Philadelphia Polyclinic.

Favorite Prescriptions.

These prescriptions are taken from our exchanges of the past month.

Summer Diarrhea.

Dr. Griffith, at the Philadelphia Polyclinic, has employed the following treatment for summer diarrhea. After the bowel is relieved of the irritating material by a dose of castor oil or calomel, administer:

℞ Phenyl salicylate.....3i
Bismuth salicylate.....3iij
Ol. gaultheria.....m. xii
Chalk mixture to make.....℥iij

M. Sig.—Two fluid drachms every two hours. Opium may be added if there is much pain.

Chapped Hands.

℞ Menthol.....gr. x
Olive oil.....m. xx
Salol.....gr. xx
Wool-fat.....3xii

M. Sig.—Apply to the affected parts twice a day.

Tympanites.

℞ Ol. terebinthinæ.....3i
Ol. amygdalæ dulc.....℥ss
Tr. opii.....3ij
Mucil. acaciæ.....℥v
Aq. laurocerasi.....℥ss

M. Sig.—A teaspoonful every three to six hours.

Black Eye.

To prevent ecchymosis of the eyelid after injuries, paint the part with the following, avoiding any broken surface:

℞ Mucil. acaciæ.....℥ss
Tr. capsici.....3i
Glycerini.....ad ℥i

M.

Chronic Rheumatism.

℞ Potassii iodidi.....3iij
Vini colchici sem,
Tinct. opii camph.....āā ℥ij
Tinct. stramonii.....3vi
Tinct. cimicifugæ.....℥iij

M. Sig.—A teaspoonful thrice daily.

Cough Mixture.

℞ Ext. pruni virgin.....℥i
Aq. camphor.....3vij
Glycerin.....3i

M. Sig.—Teaspoonful every two to four hours.

Lumbago.

℞ Atropine.....gr. iv
Oleic acid.....3i
Castor oil.....3i
Oil of lavender.....m. v
Rectified spirit.....q. s. ad. ℥ i

M. Sig.—For local application.

Critical Comments.

It Quiets Pain and Promotes It.—Rather a paradoxical statement. True, nevertheless. When pain is useless, then antikamnia quiets it; when it is necessary, the same remedy increases it. This refers to the use of antikamnia in the pains of labor and as a promoter of labor pains.

H. C. Reemsnyder, A. M., M. D., of Philadelphia, in a recent article says that whenever there is unncessary pain in labor he administers ten grains of antikamnia, repeated in two hours, if necessary. In this way the pain which annoys the woman without helping her is relieved, while the uterine contractions become more firm and labor is accelerated.

Dr. R. B. McCall, Hamersville, Ohio, contributes an article to the Woman's Medical Journal on this same subject. He says: In cases marked by unusual suffering in second stage, pains of nagging sort, frequent or separated by prolonged intervals, accompanied by nervous rigors and mental forebodings, one or two doses, five grains each, of antikamnia tablets, promptly change all this. Indeed in any case of labor small doses are helpful, confirming efforts of nature and shortening duration of process."

No Change Required.—We are often told that "A change is desirable." Some persons declare they are having a good time, when suffering the greatest inconveniences, simply for the change. But the Just's Food Weight Charts do not carry out this "change" idea. The line of health on the chart steadily climbs up, no change required. Babies prosper to-day, to-morrow, and the next day when fed with Just's Food.

Worth Remembering.

Messrs. John Carle & Sons,
New York City.

Gentlemen:—It affords me pleasure to inform you of my high estimation of the value of Imperial Granum in a recent case of obstinate vomiting of pregnancy. For many days at a time my patient could retain practically nothing in the way of nourishment until the Imperial Granum was tried, when the stomach immediately became more tolerant and nutrition was rapidly regained—and at this writing, four weeks from the time she began its use, she is still relying almost exclusively on it for nourishment.

It is safe for me to say that in the future I shall depend on the Imperial Granum when its use is indicated, and with best wishes for your success, I am,

Yours very truly,

—— ——— M. D.

Physicians can obtain samples of this most valuable prepared food free, charges prepaid, on application to John Carle & Sons, 153 Water street, New York City.

The International Medical Annual. 1897. Fifteenth year. E. B. Treat, New York and Chicago. Price, $2.75. Pages, 720.—This work of reference for medical practitioners is probably known to nearly all our readers. It is well called a Practitioners' Index. The new methods of treating disease, new remedies, and new surgical appliances and operations are all here recorded with reference where the original articles may be found. In other words, if one wishes to know the very latest, he has here a volume which will supply precisely what he desires.

At the Doctor's Expense.

Paulpry.—I hear that you have made a careful examination of the blood stains found at Badlot's barn. What do you make of them?

Serum (an expert).—It is impossible for me to say just at present whether the stains are human blood or the blood of a horse. You see, I may be engaged by the Government, and I may be engaged by the defense.—Boston Transcript.

"It's singular—infernal singular"—mused old Dr. Pillers the other day.

"What's singular?" asked another cemetery enlarger.

"Why, you know old Mrs. Skimson. Well, fifty-two years ago she ran a needle into her right elbow, and yesterday—"

"Exactly," put in the other, "it came out of her left elbow."

"No, it didn't. It came out of the back of her grandson's head. That's what beats me."

"You say I was born in Leeds, papa. Where was mamma born?"

"In Liverpool."

"Isn't it strange that we three should have got to know each other?"—Magpie.

Doctor—"Well, Pat, have you taken that box of pills I sent you?"

Pat—"Yes, sur, be jabers, I have, but I don't feel any better. Maybe the lid has not come off yet."

"You see," said the old lady, who was rather ill, "my daughter Harriet is married to one o' these homeypath doctors, and my daughter Kate to an allypath. If I call in the homeypath, my allypath son-in-law an' his wife git mad, an' if I call in my allypath son-in-law my homeypath son-in-law an' his wife git mad, an' if I go ahead an' git well without either o' 'em then they'll both be mad, so I don't see but I'd better die outright."—Chemist and Druggist.

The Rötgen ray and the location of bullets bring to mind an old army story about a general officer, who, having been wounded in the fleshy part of the leg, the surgeons made many incisions. At last, growing tired and worn out with pain, he asked if they were nearly through dressing his leg.

"I am looking for the ball," said the operating surgeon.

"Why the devil did you not say so before?" roared the officer, "I have the ball in my pocket."—Journal of the American Medical Association.

"I didn't sleep a wink last night; that Tugby baby cried all the night before."

"How did that keep you awake last night?"

"You see, I waited until the Tugbys got to bed, and then I played on my cornet until daylight."

Dr. Sage—You are troubled with headaches and you do not sleep well. Evidently what you need is exercise. What is your occupation?

Patient—I am a woodsawer.

Dr. Sage—Well—er, suppose you do not grease your saw for a week or two. —Boston Transcript.

Doctor—"You have only a few minutes to live. Have you any last wish?"

Patient—"I wish I had engaged another doctor."—New York Tribune.